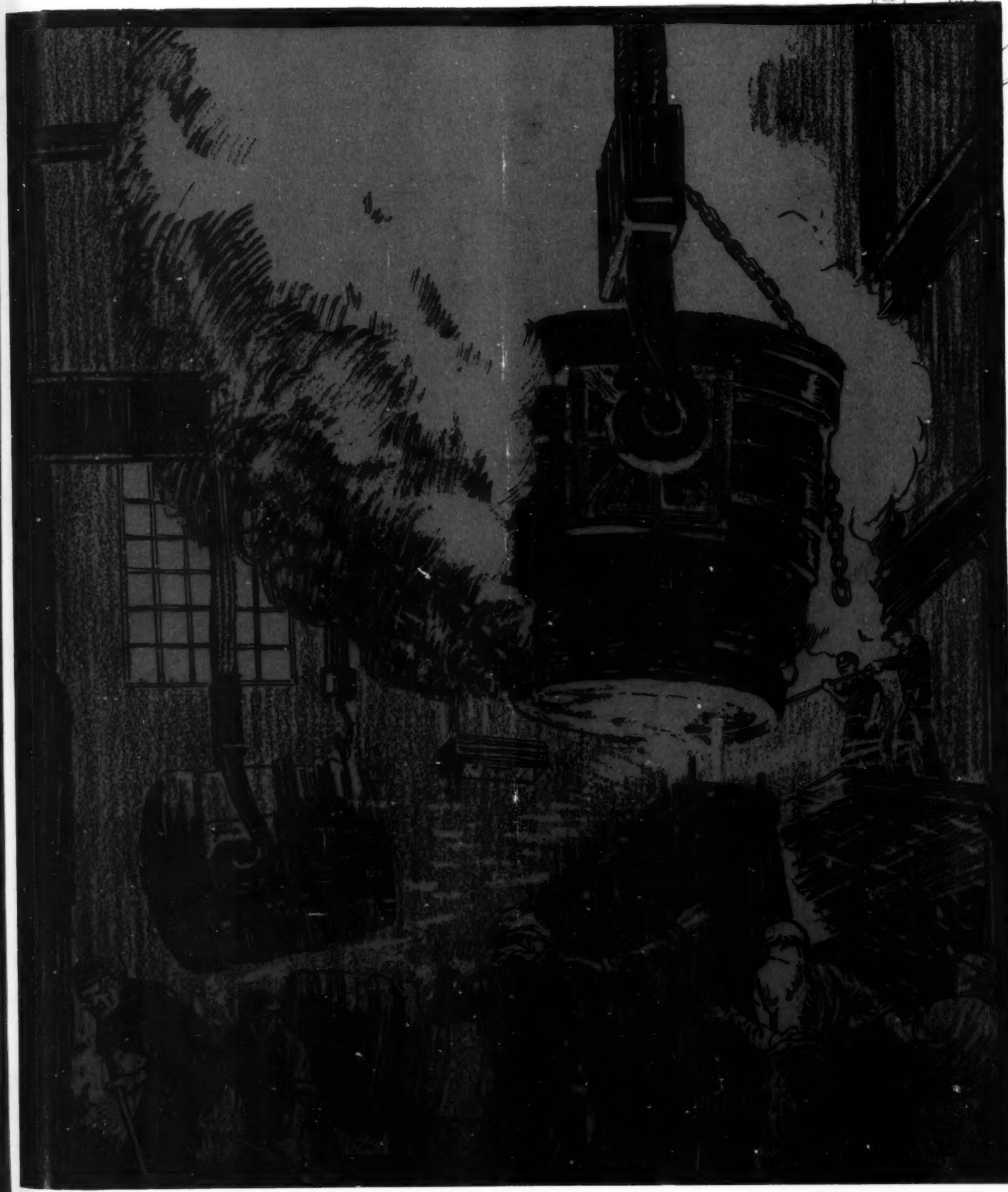
JOURNAL OF AMERICAN INSURANCE



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BURTON S. FLAGG

BURTON S. FLAGG, Chosen As President of the Federation of Mutual Fire Insurance Companies is One of the Most Notable Figures in the Entire Mutual Insurance World. Educated at Worcester Academy and Brown University, He Rose Steadily to High Rank When He Entered the Business World, and is Now Prominent in a Large Variety of Activities. He is President and Treasurer and Chairman of the Finance Committee of the Merrimack Mutual Fire Insurance Company, President and Director of the Cambridge Mutual Fire Insurance Company, On the Management Committee of the Mutual Reinsurance Bureau, Director of the Salem Mutual Fire Insurance Company, Senior Member of Smart and Flagg Underwriters, Commissioner of the American Mutual Alliance, One of the Board of Governors of the Federation of Mutual Fire Insurance Companies, Director of the National Association of Mutual Fire Insurance Companies, as Well as Holding Important Executive Offices On Numerous Educational, Religious, and Municipal Boards, and Acting as Trustee For Various Funds and Personal Estates. Mr. Flagg is a Member of Many Clubs, a Thirty-Second Degree Mason and is Known as a Sound and Progressive Counselor in any Enterprise With Which He is Connected.

Property and Casualty Insurance

Side Lights On the Importance of Closer Understanding Between All Parties Connected With These Branches of Underwriting

By AVARD L. BISHOP

Professor of Business Administration, Yale University

ARTICLE V.

FIRE INSURANCE PROTECTION FOR THE MORTGAGEE

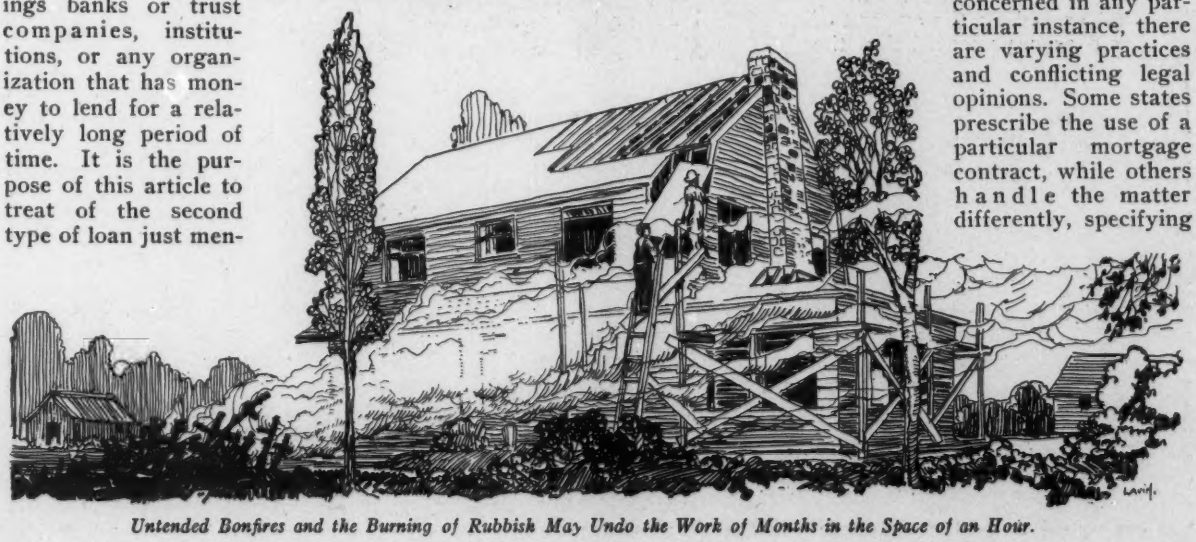
REAL estate improvements, in the form of private dwellings, apartment houses, office buildings, garages, industrial plants and so on, call for the expenditure, in the aggregate, of tremendous sums of money. Such funds are supplied only in part by those who hold title to the improved property. The balance, to a very large degree, represents borrowings with the improved property as security. From the standpoint of the lenders, such funds represent, in most cases, mortgage loans. Experts have estimated that more than half of all real estate improvements have been effected in greater or lesser part, by money borrowed on mortgage.

A considerable portion of these borrowings is evidenced by mortgage bonds in the hands of various individuals, savings banks, trust companies, insurance companies, educational institutions and so on. Such bonds are issued under a mortgage or deed of trust, and usually a competent trust company has supervised their issue, holds the mortgage in behalf of the bond holders, and, in general, looks after their interests. Most of the remainder of the borrowed funds is evidenced by individual mortgage notes in the hands, ordinarily, of the lenders or mortgagees. These may be private individuals, savings banks or trust companies, institutions, or any organization that has money to lend for a relatively long period of time. It is the purpose of this article to treat of the second type of loan just mentioned, and to deal, primarily, with the problem of safeguarding the interests of the mortgagee so far as the fire hazard respecting the property in which he is interested is concerned.

THE mortgagee, though not in possession of the property which has been improved with funds that he loaned, has, of course, an interest in the property in question. His interest, as in the case with the owner or mortgagee, is an insurable interest. Presumably, he has in his possession a note to the amount of the loan, duly signed by the borrower, and this note is supported or secured by a mortgage document duly signed and executed by the mortgagor. Were there no further risk, that is no risk of fire occurring in the buildings constructed with the help of the funds of the mortgagee, the latter would feel that he was duly protected; but, as everybody knows, mortgaged property is subject to the risk of loss or damage by fire the same as that which is unencumbered by a mortgage. Consequently, additional protection of the mortgagee's interest is desired in the form of fire insurance coverage. It has, therefore, come to be practically the uniform custom to have the mortgagee's interest supported still further, that is to say, he has the note, the mortgage, and a fire insurance policy to round out his protection. On mortgaged property, even in the simple case of a first mortgage only, there are, therefore, three parties concerned—the owner or mortgagor, the mortgagee, and the fire insurance company.

In this country the separate governments of the individual states, rather than the federal government, for reasons to be discussed in a later article, have jurisdiction over insurance. This means that insurance is subject to nearly fifty different masters. The state laws are a maze of conflicting requirements when compared with each other on certain points with the consequence that what is prescribed by law in one state may be entirely different from what is required in another. In a word, nonuniformity of law and of procedure is the situation with respect to insurance regulation and control.

MORE specifically, with respect to matters touching the relationships between the mortgagor, the mortgagee, and the insurance company (or companies) concerned in any particular instance, there are varying practices and conflicting legal opinions. Some states prescribe the use of a particular mortgage contract, while others handle the matter differently, specifying



Untended Bonfires and the Burning of Rubbish May Undo the Work of Months in the Space of an Hour.

the rights of mortgagees with respect to proceeds of insurance payments, and so on. On the whole, it seems to be the opinion of outstanding authorities that the mortgagee's interests are in practically all jurisdictions rather carefully safeguarded in one way or another, one writer claiming that "if there is a more highly favored party to any contract than a mortgagee under a policy of fire insurance, he has not yet been discovered." In one or two states a standard clause covering the mortgagee's interest is by law embodied directly in the policy. In another instance, in case a loss occurs the insurance indemnity is payable to the party or parties who are in possession of the mortgage notes; while in other jurisdictions the holder of the mortgage has a statutory lien with respect to any money that the insurance company may pay to the owner of the insured property in case of fire loss or damage, and so on. Somewhat apart from the legal phases of the matter of protecting the mortgagee's interests are the practices which have grown up for covering the fire risk of the lender of money on real estate. It is primarily the latter phase of the question that will be considered here.

Historically, it is highly probable that the first method practiced for conserving the insurable interest of the mortgagee was for him to buy his own insurance and pay the premium thereon. This policy would be taken out in the name of the mortgagee, would be entirely independent of any coverage purchased by the owner of the property, and, presumably, would be for an amount equal to, or at least not exceeding, the amount of the loan as represented by the mortgage note. Let us suppose, for illustration, that the note was for $5000, and that the mortgagee bought $5000 insurance coverage, and that a fire occurred resulting in a total loss to the property in question. The mortgagee collects $5000 from the insurance company. Three years later, let us say, the mortgage matured and the mortgagor should undertake to pay the mortgagee the principal of the note —$5000. This would seem to be a very profitable deal for the mortgagee if he should actually receive payment from the mortgagor. In order, thus, to prevent the former profiting by the fire, and to make the situation equitable to all parties concerned, it became the rule for the insurance company, upon paying the mortgagee his indemnity under his own policy, to be granted the right to collect the $5000, as is the particular case cited above, from the mortgagor rather than have the latter make the payment to the mortgagee. In legal parlance, in other words, the insurance company, to the amount of the indemnity paid, would become subrogated to the mortgagee's rights in the case. On the whole, this particular plan of safeguarding the mortgagee's interest is not very satisfactory, particularly to the insurance company and the mortgagee himself, so that other alternative plans have been devised. These will now be considered, and the first to be treated is the use of the so-called mortgagee clause.

THE MID-WINTER MEETING OF THE

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will be held at

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DEC. 6, 1927

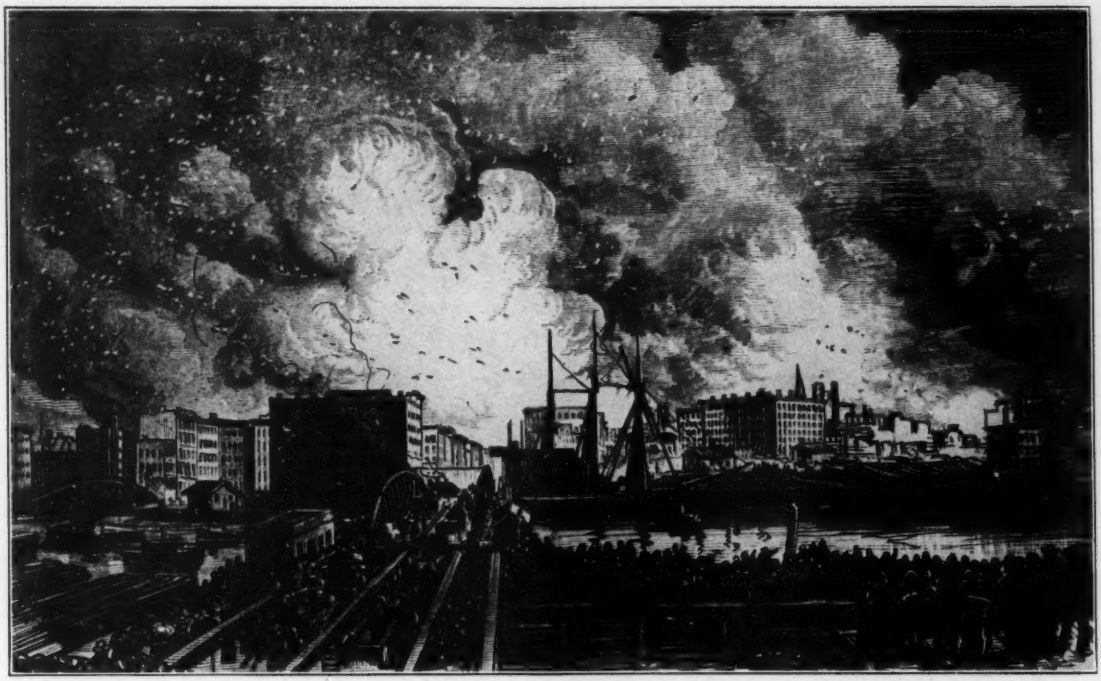
THIS is probably the most-commonly used plan at the present day for protecting the mortgagee's interest and it deserves, therefore, considerable attention. It consists in issuing a single policy of fire insurance to cover the interests both of the mortgagor and the mortgagee. The policy is applied for, paid for, and issued in the name of the mortgagor. The interests of the mortgagee are safeguarded by the attachment to the policy of a special endorsement known as the mortgagee clause. Lack of space prevents the inclusion of the text of one of these clauses here, so that some of its features will be noted. So far as we have been able to learn, there is no single mortgagee clause that is standard throughout the country. The mortgagee clause here referred to, however, is one extensively used.

First of all, loss or damage, if any, under the policy, is made payable to the mortgagee as his interest may appear. Furthermore, the insurance, so far as the mortgagee's interest is concerned, is not invalidated by any act or neglect of the mortgagor or owner of the property, provided that in case the mortgagor or owner neglects to pay the premium on the policy, the mortgagee shall make such payment on demand. This concedes much to the mortgagee, inasmuch as the invalidation ot the policy by an act of the mortgagor does not automatically affect the coverage under the same policy as regards the mortgagee, provided the latter takes prompt action as specified in the clause under consideration. Inasmuch, however, as the mortgagee is quite unable to control the acts of the mortgagor, the above concession to the former is a reasonable one.

If anything occurs to increase the hazard surrounding the risk in question, and the fact becomes known to the mortgagee, the latter must notify the insurance company concerned and pay promptly the extra premium for the increased hazard, otherwise the policy becomes null and void. Moreover, if the insurance company pays the mortgagee any indemnity for loss or damage under the terms of the policy, the company shall be subrogated to the rights of the mortgagee on account of such payment.

THE application of the mortgagee clause, in the event of an insurance claim arising from damage by fire, may be illustrated by assuming that John Doe is the mortgagor of a house worth $10,000; that A holds a mortgage note on the property for $5,000; and that John Doe buys $10,000 fire insurance from the B Fire Insurance Company, having attached thereto a commonly used form of mortgagee clause for the protection of the interests of A so far as fire is concerned. A fire occurs on the premises and the loss is mutually agreed to be $4,000. Quite apart from local custom in the matter, there are, as a matter of theory, several ways of equitably adjusting the loss. In the first place, the insurance company might issue a joint draft for $4,000, payable

(Continued on page 30)



About The Chicago Fire of '71

Civil War Veteran Relates Unique Experiences of That Historic Conflagration

Presented By
CATHERINE BEACH ELY

IT was fifty-six years ago, on October 8th to 10th, 1871, that the "Great Fire" ravaged Chicago. It travelled at incredible speed eating clean to the ground as it went, and leaving 200,000 people homeless. The catastrophe came at the end of an unusually dry Summer, when the city's wooden buildings (at that time Chicago was a wooden city), were baked and brittle from months of hot arid weather. The fire broke out in the lumber district on the West Side; rendered insatiable by high fierce winds, it turned again and again into new routes.

The flying population took refuge from wind-driven firebrands and intolerable heat at the edge of Lake Michigan and even in its waters. On the ninth of October the fire was checked on the South Side by gunpowder. On the North Side, where the water-works had been destroyed by the flames, the fire ate its way nearly to the prairie. There it was quenched by rainfall after it had raged forty-eight hours.

TO help the sufferers, funds and supplies were rushed in from all parts of the United States and from abroad. Foreign countries contributed nearly a million dollars; one-half of this sum came from England. The United States gave five millions —a huge sum in those days. The dead were buried, the sick were cared for, temporary homes were built for nearly forty thousand people. Out of the ashes of the wooden city a Chicago of brick and stone emerged. Within a year the business district grew up again as by magic; within three years the city once more dominated the Illinois prairies, on a firmer basis, wealthier and more successful than ever.

At the outbreak of the Chicago Fire, Samuel Beach, an ex-Civil War soldier, had a position in a Mutual Life Insurance Company's office at 231 West Madison Street, a location destined to be in the heart of the burned district. Like many other ambitious young Easterners, he had sought a business career in the West at the end of the Civil War. Samuel Beach's youth was crowded with important events. When a school-boy at Stockbridge, Mass., he enlisted among the first in a Massachusetts volunteer regiment of 1861, and served for nearly three years in the Union Army under General Alpheus Starkey Williams. According to a recommendation written by a superior officer, Samuel Beach took part as a "cool, zealous and brave soldier in all the battles in which his division was engaged." An old army tin-type shows him in military cap and cape — a wholesome young American of the sixties, whose features combine shrewd observation with good nature and philosophical humor.

Seven years after the close of the Civil War, as an alert young Chicago business man, he was an eye-witness of the terrible drama of the Great Fire. In a letter written almost literally out of the flames to his mother on October 14, 1871, he narrates the experiences of those harrowing days.

HE begins his narrative of the Great Fire at Saturday evening, October 6th, 1871. About half past nine o'clock, when on his way to Madison Street to take a car home, he heard the fire-alarm strike

the box-number at Corner of Wells and Monroe Streets. As he was so near he decided to go to the fire, and found it well under way in a frame building, which it destroyed with two adjoining buildings. We see from his account how the fire, like a Gargantuan wild beast, was whetting its appetite for the supreme devastation which was to follow.

The young man writes his mother, "After I had watched the firemen work about an hour another alarm sounded, this time for Canal and West Adams Streets, and was followed by a general alarm. I went over to Adams Street bridge, and there found a fire well started in a large planing mill, which was speedily consumed, and thence it went into a large lumber yard, cleaning that out, thence back across Canal West, taking everything clean for about four blocks, but mostly lumber mills and frame buildings. The firemen worked ferociously and succeeded in staying the flames at last, and I went home and retired."

Young Beach had run eagerly to a night fire, had seen it extinguished apparently, and believed it but a commonplace misfortune of city routine.

Sunday evening (October 7th), he spent on the North Side with a friend from the Insurance Office, and as he was returning home about half past nine he discovered that there was a fire somewhere on the West Side. He writes, "I hadn't noticed the alarm and so couldn't tell where it was. I hurried along down to Madison Street and ascertained it was at the corner of Halsted Street, about two miles South of Madison Street and about half a mile back from the River. I thought my experience of the previous night satisfactory in the line of fires and decided to go out home. When our car passed Halsted Street I took a good look and could plainly see the flames sweeping across the street with as great fury as though there never was an engine in the city. I felt sort of worried at the looks out there, but thought I would go home and go to bed."

SAMUEL BEACH had married Bena Cushing, a Chicago girl, who was a talented singer with a fascinating personality. Pictures of the early seventies show his young wife with ash-brown hair in heavy braids, with animated eyes and mobile mouth.

He continues, "I told Bena when I got there that I could not see what could prevent the fire from scooping through to Madison Street northward as everything was so dry. Two or three men from the house went down to see it, as they said they missed the blaze of the previous night. Bena and I retired and went to sleep, but were awakened from time to time as one and another came in with reports of the fire. About two o'clock Monday morning (October 8th), Will Baldwin called me, saying the fire had crossed the River into the South Side and was getting very near our office, at which I jumped up and dressed, and, as Bena wanted to go with me and Mr. and Mrs. Baldwin were going along, I took her."

The two men with their wives had to walk, as it was too late (or too early), for street-cars, and they soon arrived at Madison Street Bridge, where a dense crowd of excited business men were tearing across to get to their offices on the South Side. Young Beach told his wife to stay with the Baldwins and got them into a safe place; he then followed with the crowd, hoping the fire had gone behind the Mutual Insurance Company's office where he worked, and that he could get there in time to put everything valuable into the vaults.

"But just as I was about to step off the bridge," he narrates, "back came the crowd followed by a volume of smoke, cinders and flames, and all progress in that direction was barred. At this time the Court House and Board of Trade Buildings were both in flames. I was determined not to give it up, so I ran over to Randolph Street Bridge and crossed, went down two blocks to Franklin Street, where I saw that the whole of Randolph Street was going."

As it was too hot to turn into Wells Street, he took an alley which passed his office and went on to within a block of the Insurance Office.

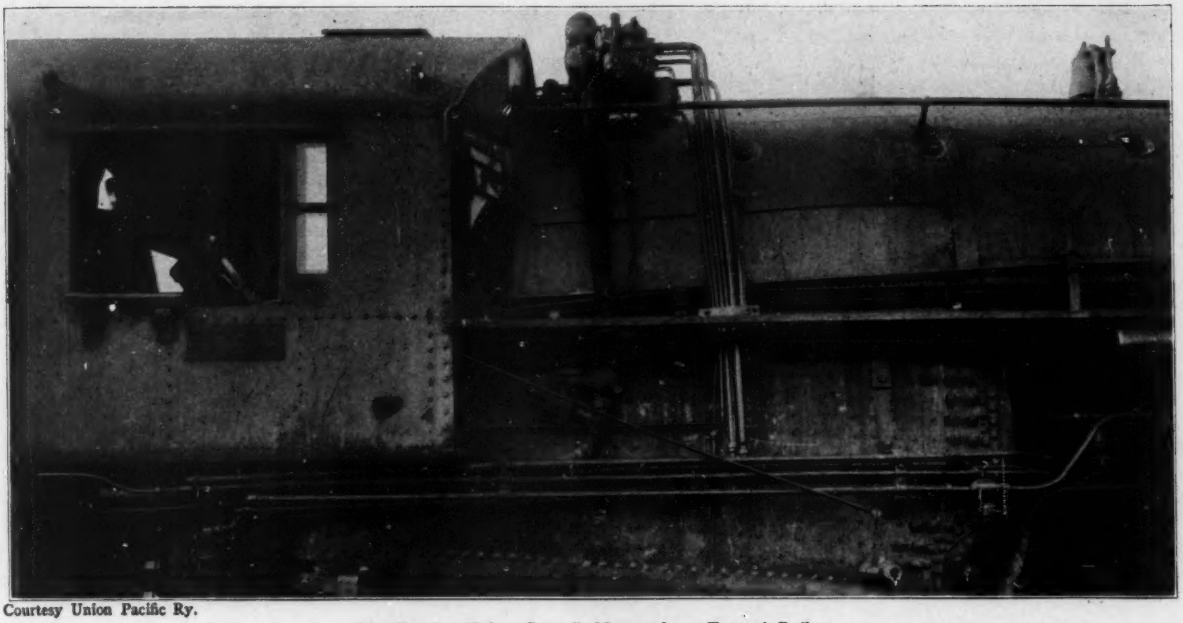
HE portrays his predicament in youthful vernacular, "A frame building right at my side burst into flames all over apparently. I saw at once that further advance into that alley, or to stand there three minutes was sure burn, so I decided to retrograde, which I did right lively too, for it was fearfully hot there. I didn't stop again until I had got to the bridge, which I recrossed, and hurried to Bena, whom I found right where I left her gazing in admiration at the fire."

Baffled in his efforts to reach his office he went with his wife and the Baldwins to Washington Street and down by the River where they sat down on a lumber pile, awed at the scope of the disaster in which they were involved.

"Such a scene!", writes young Beach. "Before us stood blazing blocks of buildings which composed the very business centre of the great city. Vast volumes of flames rolled up apparently to the sky, and wall after wall of those great blocks top-

(*Continued on page 20*)

During the Chicago Fire Many Families Were Forced to Flee to the Lake in Order to Escape the Flames. The Beach Presented a Picturesque But Pitiful Sight with House hold Goods Scattered About in Great Confusion and the Bewildered Crowd Frantic With Anxiety



Courtesy Union Pacific Ry.

"Application Valve Group" Mounted on Top of Boiler

Railway Accident Prevention

What the Big Transportation Companies of This Continent are Doing to Eliminate Damage to Person and Property

By J. PAUL ATWOOD

EVERY once in a while, a train is run past a signal. There may be no serious consequence, and the public hears nothing about the matter. But when the disregard of a signal wrecks a train, and piles up a list of dead and injured, the public is greedy to discover all the details. And after the first hysteria has passed, the investigation usually shows that blame for the disaster rests with one man, or with a group of men. Probably these employees have had a perfect accident record in the past, and they may have relaxed their vigilance only for a second. Then their train plunged with a roar into another train, or hurtled off the tracks.

The human equation is the big problem in railroad safety work. Men are not automatons whose movements can be timed and regulated; and men, being only human, may fail in an emergency. Yet railroad safety is continually increasing, for improved equipment and mechanical devices, working with mechanical precision, are decreasing the accident hazard by serving as checks in situations which previously depended entirely on human judgment.

In the last report of the Interstate Commerce Commission, an analysis of the 104 collisions and derailments investigated for the year ending June 30, 1926, was prepared to ascertain the number of accidents which could have been prevented by automatic controls. The accidents were divided into four groups, derailments, collisions in automatic signal territory, collisions in non-automatic signal territory, and collisions in time table and train order territory and yards.

IN the first group, were forty-three accidents which cost the lives of seventy-eight persons, and the injury of 666 others One accident was "preventable by train stop or train control" *while three others might have been preventable. In group two there were sixteen accidents, eight of which costing the lives of thirty-two persons, and injuries to 195, could have been prevented by proper automatic train stops. In the third group, two accidents are listed as preventable, while three are placed under "probably preventable," while in the fourth group with its record of forty accidents, fifty-eight deaths, and 583 injuries, four accidents are listed as preventable, with twenty-three others probably preventable. If this had actually been accomplished, forty lives would have been saved, and 565 persons been uninjured. Finally, the report states: "The number of preventable accidents, the number of persons killed, and the number injured in such preventable accidents, represent 42.3, 44.3, and 52.1 per cent, respectively of the total number of accidents investigated, persons killed and persons injured."

For many years now, railroad men have been laboring to perfect automatic train controls. The difficulties involved are indicated by the opinion of the Interstate Commerce Commission that of the fourteen train stop and train control devices submitted to them during the year, only "two possessed sufficient merit to warrant further development."

By an order of the Commission in June, 1922, forty-nine carriers were directed to install by January 1st, 1925, on a full passenger-locomotive division, included within a designated portion of its lines, train control devices meeting certain specifications and requirements. A second order was issued a year before the termina-

*Interstate Commerce Report.

tion of the first time limit, requiring forty-seven of the original carriers to install a control device on a second full passenger-locomotive division, besides directing forty-five other carriers to make installations by February, 1926. In some cases, where unusual circumstances made it impossible to meet the requirements of the order, additional time was given, but altogether, the work is continuing expeditiously.

ONE automatic stop system controls the engine apparatus from the track by magnetic induction. A control valve on the engine, normally held closed against air pressure by a permanent magnet, is released by the magnetism from a track magnet laid in the center of the track. In the track magnet, permanent magnets normally supply the magnetism which acts upon the control valve, and electro-magnets energized when the track ahead is clear, divert the magnetism of the permanent magnets, by drawnig it through the electro-magnets, enabling the control valve to pass over the magnet without being operated.

This system acts as a monitor. Even after the engineer has disregarded a caution signal, and the automatic stop has begun to operate, he can again gain control of the train and of his brakes by using the fore-stalling valve before the track magnet at the next signal is reached. Then the train can proceed under the direction of the engineer according to the conditions on the track ahead.

On occasion, it is necessary to pass a stop signal, and here again the fore-stalling valve is put into operation allowing the train to proceed despite the signal against it. The valve contains a timing device which automatically restores normal conditions fifteen or twenty seconds after it is operated, consequently, it cannot be set to prevent automatic stops indefinitely, but must be employed before the control valve operates.

Automatic stops are made as smoothly as when the engineer is controlling the brakes. There are no jerks, and when tests were being made, passengers were unaware that anything unusual was occurring.

In many parts of our country where thick weather often obscures the view of signals, or under conditions that exist in snow sheds and tunnels, a signal may sometimes be missed. Then the automatic control operates. Engineers who were at first antagonistic to the new device, have come to realize that it is an unexcelled check and an excellent monitor.

In the first order of the Interstate Commerce Commission on train control devices it was announced:

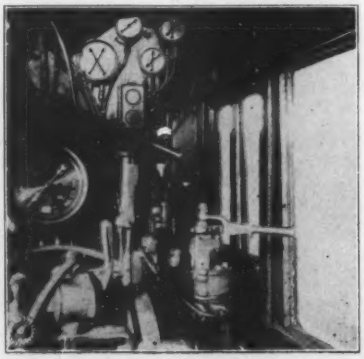
> We have decided not to limit by our order the installation of automatic train-control devices to roads, or portions of roads, already equipped with automatic block signals, because we have no desire to discourage efforts to automatically control trains without the aid of fixed wayside signals. The statement, therefore, of the primary function of automatic train-stop or train-control devices recognizes the possibility of installing such a device without the use of automatic block signals.

Later, another statement was made pointing out that:

> In prevailing practice the primary function of automatic train-stop or train-control devices is to enforce obedience to indications of fixed signals; but the feasible operation of essentially similar devices used without wayside signals may be regarded as a possibility.

For the large railway system carrying heavy traffic the automatic stop will be an accessory to the automatic block signals and not a substitute for them. But some of the smaller railroads are removing wayside signals, and placing dependence on cab signals carried on the locomotive. On certain divisions of the Illinois Central on which the train stops are now installed, the automatic block signals were removed, while on the Iowa division of the same carrier, block signals have never been used, and here the train stop installation is designed on the A.P.B. principle, (absolute block for opposing movement and "permissive" or "restricted" block for following movements on the same track). Some stop and stay signals are used on this division at station headblocks.

ON the Atchison, Topeka & Santa Fe line between East For Madions and Chillicothe, Illinois trains are operated by time-table, train orders, manual block signals and the train control device which consists of complete cab signaling and automatic speed control. Some automatic signals are in use on portions of the line, although there is no complete system of automatic signals in train control territory. These automatic signals are controlled through the track relays of the train-control system, but the system operates independently of the automatic signals and so does not enforce obedience to their indications.



Indicator Lights and Gauges As They Are Placed in the Cab

Since 1913, railways have definitely been working on the problem of safety. Today, all railways are organized for safety work which is progressing by the proverbial leaps and bounds. Competition in decreasing accidents, is keeping trainmen keyed up to the point where the number of accidents is diminishing. Groups of men are divided into teams, each one striving for the best accident record. It is as vital a game as ever was played.

Sometime ago, the New York Central lines adopted the slogan, "Stop, Look and Live." And it is surprising how difficult it is to persuade the average person of the value of caution.

On all lines during the calendar year 1925, 171 passengers were killed. Exclusive of persons carried under contract, such as mail clerks, pullman conductors, and so on, the number of passengers who lost their lives constitute the smallest item in the total of 6,766 persons killed in railroad accidents. This total included 2,584 trespassers, people with no right on the tracks, school children, business men, and others who found the tracks an easier place to walk than the roadways provided for pedestrian movement, swelled the total killed by 2,584. Non-trespassers, whose business necessitated that they be on railroad property added another 2,283 more to the list. Of employees killed there were 1,594, not counting pullman conductors, and others carried under contract. The total of all persons killed was 6,766 while 137,435 others were injured.

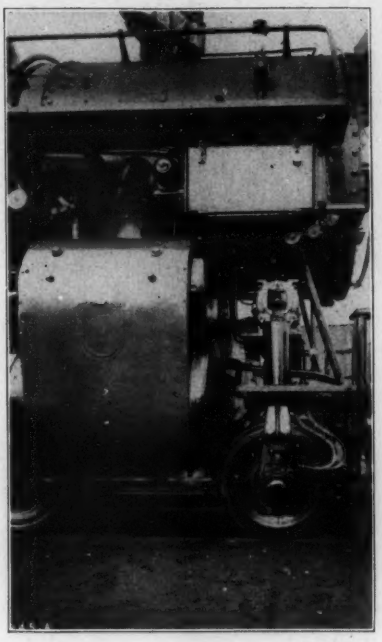
To offset the gloom which such statistics may invite, persons who are naturally timid of riding on the trains should welcome the information that in America, only one passenger is killed for every 210,236,221 miles traveled. In England, the passenger's life is not quite so safe, for on an average of one for every 183,592,526 miles traveled loses his life.

Statistics tell the story of the increased safety of railroad travel far better than words. In 1916, 5.2 persons were killed per million locomotive miles, while in 1925, this percentage had been cut to 3.6. Railroad men can well be proud of the record they have achieved, although the statisticians leave themselves open for facetious remarks concerning the .2 or the .6 of a person killed.

RAILROAD travel has certainly changed since 1869 when George Westinghouse invented the air-brake. Tracks are built to haul bigger loads, and to remain in good repair for longer periods. Automatic couplers are taken for granted, and work efficiently, although it is less than half a century ago that men constantly endangered their lives coupling and uncoupling cars. Trains are built now both to insure the travelers' comfort as well as his safety. And all of these inventions and improvements have been effected after many long years of experimentation and discouragement.

For many years, the railroad tracks presented a difficult problem. Neither the design, nor the materials could be developed satisfactorily. Many trains were wrecked when they struck imperfections in the track. It is imperative that the level of the tracks be continually checked. To accomplish this, Dr. Dudley of the New York Central developed a machine which attached to an ordinary railway train records the condition of the tracks by leaving markings of various colors. After the machine had been used for the first time on certain districts, the tracks looked like a varigated flower garden.

It was in the early 1900's that the New York, New Haven & Hartford offered a prize of $10,000 for a plan which would eliminate the danger of head on collisions. Railroad men had not been able to work out a satisfactory system, and so the general public was invited to make suggestions Close to three thousand applicants submitted their ideas for the prize. Four of the contestants had their residence in lunatic asylums, four in penitentiaries, one admitted that his suggestions were inspired by a message from heaven, while another claimed that his plan would cause the death of the engineer and fireman, but the passengers would be unharmed. A representative plan provided that at certain points, tracks should be arranged in circles, so that instead of colliding, the train would continue to run around in circles.



Front End View Showing Coils Mounted Over Front of Front Pony Truck Wheel; Speed Control Governor Attached to Pony Truck Wheel, and Equipment Box Mounted Above Governor and Under Running Board.

IT has been estimated that 85% of all injuries on the railroad are attributable to carelessness, ignorance, misadventure, or physical unfitness. People have to be forced to take care of their own safety. The arrangement of train windows is an excellent example of how passengers' safety is guarded by the railroads who have learned that the average person cannot be expected to safeguard himself. Today, on the majority of lines, the windows can be raised only a certain distance, and this distance is not sufficient for a man to stick his head through the open window. When all train windows opened wider, decapitations occurred with too great frequency.

Vestibules as well as the cars are built to make passengers keep within the limits of safety. For the railroads do not give passengers the opportunity to flirt with danger. They forget safety so quickly, that they must be forced to obey the safety rules.

At a rapid rate, the comfort and safety of the railroad traveler is being increased. Crack trains carry cars divided into attractive bedroom, bath and parlor suites. Adept barbers and manicurists manage their work handily although they are rushing along at more than a mile a minute.

Experiments are now being carried on with radio, and it is promised that before long, trains will be equipped with radio phones so that passengers can phone messages both to other people in the train as well as to persons at various other points.

THE use of radio also promises greatly to increase railroad safety. Failure of a road's telegraphic system from any cause now means that traffic is delayed and often endangered until the break is repaired. This condition should be a thing of the past, if the plan of radio communication recently announced by the Chicago, Milwaukee and St. Paul railway proves effective. Pivotal stations will be established, the longest air jump being 700 miles. Tests have been carried on now for many months, and have been entirely satisfactory. It is expected that by means of the radio, the entire 11,000 miles of the system will never be cut off from communication, no matter what conditions prevail.

It is more important to train employees in safety than other classes of persons, excluding, of course, the automobilist who continually increases the number of railroad fatalities by grossly negligent driving. The Chicago, North Shore & Milwaukee Electric Line is painting the first coach of every train a bright yellow so that automobilists will see the train at a greater distance, and be able to prevent a collision. But it is the trainmen after all, who must safeguard both their own lives and the lives of the passengers.

The number of trainmen killed and injured every year present a really difficult problem. Men working around the train yards, or on the tracks are prone to become careless. It is to keep the necessity for care before the men that railroad officials continually travel through the country, lecturing and exhorting their audience to safeguard themselves. Posters hung in prominent positions constantly keep the safety work before the men. In 1923, there were 154,240 accidents to employees including both killed and injured. At least a thirty-five percent reduction of this number was set as a goal by the Safety Section of the American Railway Association for 1930. So far, the total has slowly decreased. In 1926, the number stood at 112,828; but there is still a good way to go.

(Continued on page 20)

PHOTOGRAPH OF HUNDREDS OF MUTUAL DELEGATES ATTENDING THE RECENT CONVENTION AT WASHINGTON

Gathering of Federation and National Association A Pronounced Success From Every Standpoint

CONVENTION throngs of mutual delegates agreed that they had never seen a more interestingly beautiful city than Washington, D. C., and by the same token the capital city returned the compliment by declaring that it never had received within its borders a finer assemblage of people than those who attended the big meetings sponsored by Federation and National Association.

As prophecied previously, the early fall proved to be the best of all seasons to visit this historic city. The convention escaped the heat wave which held the country in its grip and temperatures of around seventy-five made both indoor and outdoor activities comfortable and full of zest.

A representative crowd from every section of the country arrived at the Mayflower Hotel headquarters on the 18th and 19th, and filled the rooms and corridors with men and women who were proud to wear the blue and gold badges which marked them as Mutual folks.

IN reporting the proceedings it is difficult to decide which to mention first, the splendid trips to traditional spots, the banquet and other entertainment, or the programs of the convention itself.

The first day was naturally devoted mostly to registrations and getting acquainted, with emphasis also on the golf tournament, which was held on the handsome and well-laid-out links of the Congressional Country Club through the courtesy of that organization. Every facility was provided for the best of good times and the annexing of commendable scores, and the Mutual Knights of Col. Bogey, took great delight in the day's enjoyment.

Prizes were many, and with the aid of an efficient handicap committee, were distributed widely among the contestants. Some very interesting battles developed and considerable Bobby Jones work was necessary to win out in several of the more important matches. The day was perfect for the game with a good breeze going to temper the rigor of the sun in the open, and the excellent turf of the fairways and the velvet-like greens added much to the possibility of herding the ball into the elusive holes.

Winners and their prizes follow:

Edw. K. Collett, winner Low Gross.
Grain Dealers National Cup and Federal Hardware & Implement Golf Bag.

Geo. M. Gray, winner Low Net.
Houston Dunn Cup.

Houston Dunn—Match play against Par.
Federal Hardware & Implement Cup.

John A. Buxton, runner-up Low Gross.
Matched set wooden Clubs.

Eugene Arms, runner-up Low Net.
Set of matched Irons.

Four blind bogey prizes were won by the following:

E. J. Brookhart....Leather golf bag
C. M. Purmort..Zipper carrying bag
T. C. Howay....Seal leather wallet
W. W. Swett, Jr.. .....Umbrella

John A. Arnold, Frank Bishop, Chase Smith won a dozen golf balls each.

The consolation prize was a "bushel basket of golf tees", won by Louis Weimer.

The golf prizes other than the three cups which must be won three times to remain in the permanent possession of any one person were donated by the following:

Atlantic Mutual Fire Insurance Company, of Savannah, Ga.
J. M. Cook, Mansfield, Ohio.
Grain Dealers National Mutual Fire Ins. Co., Indianapolis, Ind.
Merrimack Mutual Fire Insurance Co., Andover, Mass.
Michigan Millers Mutual Fire Ins. Co., Lansing, Mich.
Mutual Fire Insurance Co., of Reading, Pa.
National Implement Mutual Ins. Co., Owatonna, Minn.
Pawtucket Mutual Fire Ins. Co., Pawtucket, R. I.
Justin Peters, Philadelphia, Pa.

WASHINGTON WELCOMES MUTUAL CONVENTION

By Schutz

LOOK CAREFULLY NEAR THE CENTER AND SEE CALVIN COOLIDGE, PRESIDENT OF THE UNITED STATES

WASHINGTON WELCOMES MUTUAL CONVENTION

Mutual Representatives From Practically Every State in the Union Meet to Exchange Ideas

Retail Merchants Assn. Mutual Fire Ins. Co., Springfield, Ill.
United Mutual Fire Ins. Co., Boston.
Western Millers Mutual Fire Ins. Co., Kansas City, Mo.
J. Ambler, Salem, Ohio.
C. A. L. Purmort, Van Wert, Ohio.
Millers Mutual Fire Ins. Co., Ft. Worth, Tex.

THOSE not so vitally interested in golf attended the sessions of the Cyclone Group under the chairmanship of J. A. Benson and heard a number of very enlightening talks on weather conditions including an address by Herbert Janvrin Browne, whose articles in the Journal of American Insurance recently excited so much interest.

At the general meeting in the evening, C. I. Buxton, President of the National Association delivered a sparkling address and various officers gave accounts of the work of the previous year. Outstanding was an address by the Hon. T. M. Baldwin, Jr., Superintendent of Insurance of the District of Columbia on "Departmental Supervision of Insurance companies," listened to with interested attention by the delegates.

Meantime the Federation had been busy with similar meetings, guided by President F. J. Martin and having as conspicuous items, addresses by Frank Nesbit of Washington, D. C. on "Sidelights On Insurance History;" by Walter C. Hill, Vice president of the Retail Credit Company of Atlanta, Ga., on "The Part Moral Hazard Plays In Fire Insurance;" by Hon. Thomas M. Baldwin, Jr.; and also by Stephen B. Sweeney, Professor of Insurance in the Wharton School of Commerce of the University of Pennsylvania. Professor Sweeney traced the evolution of Aviation Insurance from its smallest beginnings, and astonished his hearers by his summing up of the large field which in the very near future will be waiting for enterprising underwriters.

ON the second day various groups divided the time into convenient sessions for the hearing of plans, reports and discussions of the several varieties of Mutual activities.

Although these segregated meetings were not of popular interest, yet it often happened that ideas advanced in these semi-private sessions proved to be just the thing that delegates had come from a distance to hear. Knowledge of things mutual is advancing by leaps and bounds, and these quiet round table discussions, which are always an important part of a convention, are in large measure responsible for the spreading of new methods looking toward larger and larger growth and better, and better handling of problems.

Dr. V. N. Valgren well known to Journal of American Insurance readers gave an authoritative talk on "Standardization," which was a high light of the meeting of the Farm Group.

On Tuesday the Federation had a feast of Mutual addresses, all by executives of prominent companies and full of important information of technical character. It is hoped that excerpts from many of these talks will be available for reprinting in these pages during the next few months.

Nor were the ladies forgotten in the building of the program. They were royally entertained on Tuesday morning by a meeting preceded by music, and having for its main interest an address by Mrs. Chase Going Woodhouse of the Bureau of Home Economics on "What The Bureau of Home Economics is Doing For The American Family."

THE afternoon was given over to visiting the Arlington Cemetery. On the way busses carried the delegates past the most interesting points in Washington, the various embassies, public buildings, statues, parks, the zoo and notably to the unfinished Cathedral where repose in solemn

© Photo by Henry Miller

Putting Out a Roaring Gasoline Fire at U. S. Bureau of Standards Demonstration

state the mortal remains of Woodrow Wilson and Admiral Dewey.

At the cemetery itself every step seemed taken on hallowed ground, the thousands of soldiers' and sailors' graves filling the mind with a sense of awe that so many lives had been lost in defense of the liberties that we enjoy.

The great memorial auditorium reared its white marble columns to bar the way to the tomb of the unknown soldier, where one of the army boys of today, in immaculate uniform, guarded the spot made sacred to the memory of those who perished in the World War. Here indeed was a place where patriotism flooded the heart, and memories of heroes gone before gave inspiration to serve the nation well in days to come.

FOLLOWING such an interesting afternoon was an equally interesting general meeting of the Association and Federation, Mr. Buxton presiding with wit and aplomb over a session having many worth-while features.

Mr. F. J. Martin, one of the veterans of the Mutual World and President of the Federation spoke with authority on "The Pace of Progress," The Honorable Carville D. Benson, Insurance Commissioner of the State of Maryland welcomed the delegates and expressed his appreciation of the work the Mutual Companies were doing.

The Honorable R. W. Dunlap, Assistant Secretary, United States Department of Agriculture, went thoroughly into the subject of "Standardization in Agriculture," and developed several angles of exceptional interest to Mutual hearers.

Reports and other matters of routine business closed the evening.

ON Wednesday morning the farm group and many others interested in fire prevention methods went to the U. S. Bureau of Standards to hear a series of talks and see demonstrations of equipment.

The Bureau proved to be a most substantial institution, with excellently appointed laboratories and a lecture room which was the last word in convenience, comfort, and fine acoustics. Several of the staff gave lectures on their specialties. Dr. Walter E. Stutz spoke on "Fire Extinguishers and Their Use," clearly explaining the leading types of such apparatus and pointing out the merits and specific uses of each.

Dr. M. G. Lloyd, addressed the delegates on "Lightning Protection," with special reference to farm buildings, bringing out a number of odd and little known facts, which precipitated considerable discussion.

"Fire Resistance of Buildings," was discusesd by Dr. S. H. Ingberg, who gave helpful information concerning materials and construction, and the results of a wide variety of tests made at the Bureau. His talk was emphasized by stereopticon slides, showing in detail various diagrams and photographs to make the points in his address more clear.

All the speakers called especial attention to the fact that the Bureau is always ready to give out information in its possession, the charge for their booklets and pamphlets being only a few cents each. It was suggested that those interested should write for a catalog of the Bureau's publications.

SUBSEQUENT to the lectures, demonstrations were made. Fire fighting was shown, using portable extinguishers, the most spectacular exhibition being that of putting out a roaring gasoline fire in the space of seventy-eight seconds.

The "wind tunnel" was an object of much curiosity. A gale of almost cyclonic proportions was generated in this huge tube by a large propellor, and apparatus was so arranged that wind pressure at sundry speeds could be measured.

(Continued on page 20)

The Left-Hand Drive

Why the Resistance to Changing from The Right-Hand Position Has Been Hard to Overcome

By J. R. CLAIR

Engineering Dept.
Liberty Mutual Ins. Co.
Boston, Mass.

IT is a surprising fact, with the tremendous rising tide of interest in the problem of highway accident prevention, that so little attention has been paid to the safe operation of horse drawn teams and wagons.

The great hazard of the gas motor vehicle seems to have completely eclipsed any consideration for the driver of the horse and his equipment. Without a question of a doubt the team and wagon era has passed its hey-day and is rapidly fading into the pages of history.

Horse drawn vehicles, however, represent a substantial volume of traffic especially in the commercial districts of our cities. There are a number of industries such as milk distributors, laundries, and bakeries, to whom the horse and wagon yet represents the most economical means for distributing their products.

Late in the Fall of 1926, the personnel of the Automobile Engineering Department of the Liberty Mutual Insurance Company, conducted a survey of horse drawn commercial vehicles. One surprising result was obtained. This was that from 60 to 70% of all teams and wagons carrying enclosed bodies or "Blind" loads, were directed by the drivers from the right hand side of the drivers' seats.

When reasons for this were inquired into, no suggestions were forthcoming as to why such a practice should be so universally popular.

GOING through the whole history of transportation up to the beginning of the twentieth century, and the automobile age, all vehicles had been driven or controlled from the right hand side of the driver's seat.

The Egyptian war chariots, the horse drawn battle wagons of Greece and Rome, the romantic stage coach of England, the covered wagons of our American pioneer days, the farmers' buckboards and the flashy rigs of our sportsmen have all been driven by men who flourished their whips from the right hand side.

Can a reason be found for this hoary custom? Why do our old horsemen brand the man who drives from the left hand side of his driving seat as a greenhorn?

One item has been found which represents something of a logical reason for the right hand drive. The right hand has always been the whip hand. A passenger sitting beside the driver, and to his left, interferes in no way with the flourishes necessary for the efficient application of the whip for the encouragement of the beast of burden. On the contrary, should such a passenger sit upon the driver's right, the driver would find very quickly that his only means for accelerating his motion or progress would be badly cramped. The right hand side has therefore become the logical position for driving. When this practice started, history probably does not remember. It seems to be a tradition, an instinctive habit, a heritage which has come down to us from the ages.

THE first motor vehicles under the name of "horseless buggies" made their appearance about thirty years ago. The first models were equipped with whip sockets! Many of us can remember these very clearly.

It was more or less logical that the new type of vehicle should adopt some of the characteristics of the old. But the new motor vehicles developed rapidly. Before a great many years, the manufacturers realized that the only safe position for the driver to be in, was upon the left. Traffic became comparatively swifter in movement. Steering wheels were promptly moved to the left hand side of the motor car which also gave the operator the advantage of being able to use the control levers with his right hand.

This development in motor car construction has proceeded to such a point that, with the exception of one or two different models of heavy motor fire equipment, there was not a single model of a pleasure car or motor truck displayed in any of our motor shows last Spring which still retains their steering wheels on their right hand side. This story is high proof enough that the custom of steering a vehicle from the left hand side is the only safe and practical method for traffic conditions as we are meeting them today.

It is very surprising to note how backward has been the development of the mechanical features of a horse drawn team or wagon. Horses and teams today are essentially built the same way as they were fifty years ago.

THE operator of a horse drawn vehicle is faced with equally as many hazards as he who drives a motor vehicle, if not more. Perhaps the greatest hazard of any vehicle is the left hand turn. Safety engineers in making surveys of traffic conditions and installing automatically controlled traffic signals strive to eliminate left hand turns whenever possible. The reason for this is that, first, a left hand turn cuts the flow of traffic proceeding in the opposite direction and therefore slows it up and, secondly, the left hand turn is a most hazardous maneuver. Especially is this so in the case of the comparatively slow moving horse and wagon. A left hand turn necessitates the giving of a visible hand signal by the operator making the turn. Sitting on the right hand side of the driving seat, with a blind load behind him, to do this, it is necessary for the driver to stand up on a usually narrow toe board, take hold of the left side of the vehicle with his left hand, and lean far out to look back to see if anything is approaching from the rear.

In the meantime the horse continues his forward motion under practically no supervision. The driver while in this position leaning to the left, should his vehicle be bumped even a slight blow in the rear, is very apt to be tossed heavily to the ground or under the wheels of his vehicle with serious results. If he finds that all is clear behind him, he sits back upon the right hand side of his vehicle and slowly pulls his horse to the left. A fast moving vehicle oftentimes cuts quickly behind him and on his left; a serious collision results. A hand signal is fairly impossible, and im-

(Continued on page 31)

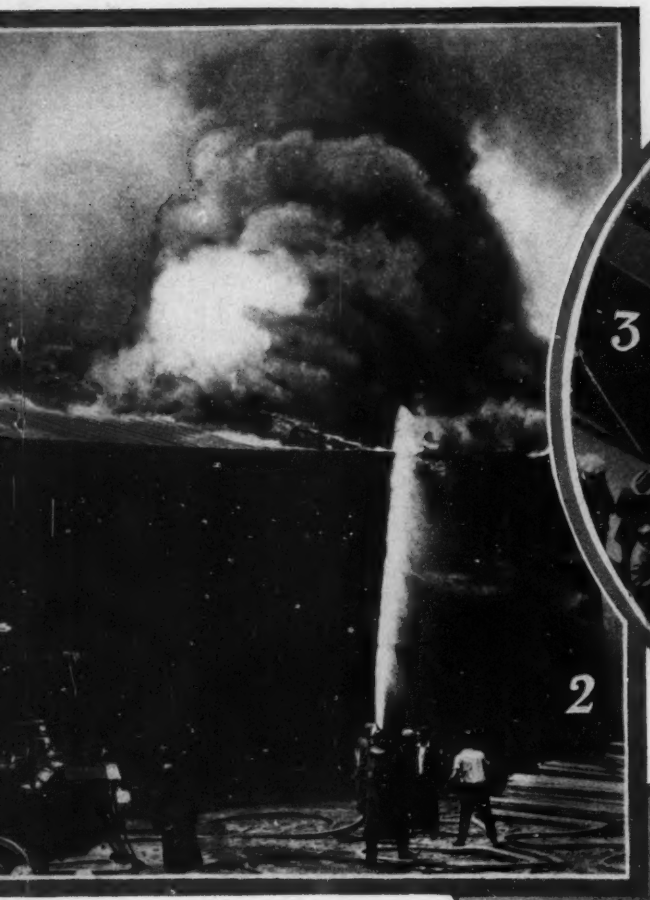
1. This Speeding Auto
York, on August 10th.
Who Was Standing on th
Photo Shows the Car Be
After It Was

2. Started by Backfire
Blaze Caused Damage Es
Lumber Yard of Van Hys
Branch, N. J. The Mi
Were a Total Loss. Th
Clouds of Smoke Whic

3. When a Los Angeles
Together Both Vehicles
Evans of Company No.
Took the Combined Effo
to Extricate the Fire Tru
So Badly Injured Th

4. In Omaha Five People In One Car and the Three In Another Sat Tight When the Two Cars Crashed. Not One of the Eight Persons Was Injured, Although the Cars Rolled Over Completely and Were Badly Damaged

. . . . MUTUAL INSURANCE COVERS THE



ing Auto Plunged Into the East River, New st 10th. Two Occupants, and a Longshoreman ding on the Pike Street Hill Were Killed. The he Car Being Searched for Bodies by the Police, er It Was Hoisted From the Water

* * *

Backfire of Gasoline Engine, This Spectacular Damage Estimated At More Than $25,000 to the of Van Hyse-Davison Lumber Company, at Long The Mill Buildings, Lumber and Machinery Loss. The Nature of the Blaze Created Dense oke Which Hampered the Work of the Fire Fighters

* * *

os Angeles Street Car and a Fire Truck Came Vehicles Were Badly Damaged and William T. pany No. 2 Was Pinned Between the Two. It bined Efforts of a Tow Car and Dozens of Men e Fire Truck and Rescue Evans, Whose Leg Was njured That Amputation May Be Necessary

5. Two Firemen Were Killed and Four Seriously Injured When a Wall Fell at the Fire at the W. L. Fain Grain Company, at Atlanta, Ga. The Destruction of the Plant Seems to Be Complete

HE LOSS IN CASES SUCH AS THESE . . . .

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Household Preparedness

THE type on our Remingwood is red hot. It is scorching the letters on the paper we have slipped into the machine. Only the cascade of perspiration from our lofty brow prevents the whole thing bursting into flame. The thermometer is on the verge of explosion, with the mercury beating against the top of its tube. But in this tropical September weather it is necessary for us to think in terms of cool October, cooler November and probably frigid December. An editor must be foresighted.

We pray that the atmospheric conditions when this reaches the reader's eye may be more conducive to the serious consideration of what we have to say, and to the energetic action which should follow.

Every wise householder believes in preparedness. It is the strong auxiliary of security and economy. Sufficient unto the day may be the evil thereof, and it is likely to be more than sufficient if we have not anticipated its possible occurrence.

Hence, in spite of all feeling to the contrary, sound reason tells us that now is the time to think about the condition of the heating plant—if we have not earlier thought of it. What shape is your furnace in—supposing you have one? How is the oil burner, or the gas heater, or the big stove with the nickel trimmings? What about the flues in your chimney? What about the pipes which carry the hot air?

LAST winter you talked about certain repairs that ought to be attended to before another winter rolled around. There was a crack in the fire-box of the furnace, or a pipe rusted so thin you could poke your finger through it, or some other defect which will cost you money in fuel even if it does not result in a fire. Or maybe the chimney was dirty; there was an accumulation of soot in the hot air pipes, or scaly accretions coating the interior of the boiler. These were all matters which you solemnly vowed would be given necessary attention before the hour arrived when a drop in temperature drove you to start a fire, and to resume the daily dozen in the coal bin.

But have they been attended to? We ask you—we ask you in all earnestness, concerned for your interests and for the reputation of mutual insurance, which is not a little affected by the seriousness with which those who constitute both its contributors and its risks regard their mutual obligations.

The dividends of the mutual policyholder are in very real measure dependent upon the carefulness of the policyholder. The man who by proper attention to such matters as we have suggested prevents a loss thereby reduces the cost of his own insurance and that of his fellow-insurers. The principle of mutual insurance implies a sense of loyalty to the common interest, and that loyalty is best shown by diligent effort to reduce the hazards so far as the property under your own control is concerned.

There are other directions in which this sane and honest precaution may be turned. Summer brings its accumulation of rubbish, piles of old newspapers and such inflammable material. Winter brings its danger that these may become the combustible starting points for bigger conflagrations. Folks have a happy-go-lucky way of leaving matches where juvenile fingers can easily get them, and since the first match was made as substitute for flint and tinder juvenile fingers have itched to possess them. They should be out of reach. A child with a match is a menace to the whole community.

ATTENTION, too, should be paid to electrical connections—light sockets, washing machines, vacuum cleaners, irons, toasters and the extension cords which are apt to fray at points of juncture and expose the naked wire.

These may seem commonplace matters upon which to discourse, but they are precisely the little things—with big possibilities—which the best of us is likely to overlook, or about which we are prone to entertain most excellent but wholly futil intentions. We await the convenient day, when we have nothing else to do, and it never comes. The wise thing is to make a day for this task of overhauling and getting shipshape for winter. Unless we do that we are inviting a later season of vain regrets.

Accidents, it is well for us to remember, are things which happen because we did not think they could or were going to happen. If we had thought we would have been on guard, and accidents do not happen to a person on guard. A little imaginative forethought will prevent many an accident. Every mutual policy holder should exercise it.

Announcement

THE Journal of American Insurance is soon to make announcement of its plans for the coming winter season. We have lately secured a number of manuscripts, of most authoritative character by outstanding writers, on a wide variety of subjects closely related to the insurance and business world. Several of these articles already have been published and others will follow from time to time. Readers connected with Mutual companies especially will be interested to watch for these features in coming issues.

In this connection attention is called to the desirability of being a regular subscriber for the Journal in order to enjoy its many fine features month by month.

Life Lights on a Business Background

The Gentle Art of Publicity

By S. J. DUNCAN-CLARK

THE other day a business friend of mine came to me for advice—free advice. He is a Scot by ancestry. I say that without malice because I confess rather proudly to a similar origin. I suppose in loyalty to the trait which the humor of our time has fastened upon the race which grew up amid the heather and nurtured itself on oatmeal porridge I ought to have declined to advise until assured of a quid pro quo. But there were circumstances in this particular case which inclined me to be generous.

My friend, who, for the sake of a name, may be called Angus MacMurchy, was launching on a new development of his business, a development which required for its success a rather wide and intelligent public interest in the objectives he had in view. In other words he had an idea which he wished to sell to the public; back of the idea was a commodity which he proposed to manufacture and to market. He was convinced the disposal of the latter could be made a most profitable enterprise if he were successful in persuading the public as to the worth and wisdom of the idea.

That, I suppose, is a fairly good statement of the problem which underlies most publicity campaigns —it is a problem of selling an idea which leads to purchase of a commodity.

HE said to me, "You know something about selling ideas. You have sold me on several since I have been following your articles. Now tell me how I can sell my big idea to the public."

"Do you think it is fair to ask me to give away my secret?" I demanded.

"Well," said he, "did it cost you so much to learn it?"

"It cost me more than anything else I possess in the world, except my reputation," said I. "Years of hard work and experience went into learning it. But I am feeling in a liberal humor this morning, and seeing it is you I am inclined to take the compliment of being asked for advice as payment for giving it. But, after I have told you, I suggest you employ a good publicity man who knows how to apply the secret. I question your ability to make effective application."

His resentful grunt satisfied me that I had evened things up.

"Go ahead," he said.

"What I am going to give you is a formula of general principles. How they shall be used in this particular instance is a matter of advertising technique upon which I do not pretend to be expert. That is why I suggest consulting a specialist—and you will have to pay him a good fee, as you should. If he knows his job he will save you many times the worth of it."

"All right," he answered, "I'll consider that later. Let's have the general principles."

"First," said I, "you must get the attention of your public. It matters little how important may be the idea you want to sell them, if you do not get attention you can get nothing else. You must tap on the window until they turn their heads your way. I am speaking metaphorically, of course. But this point of getting attention is fundamental, and it concerns the form in which your publicity appears; its sort of dress; its manner of approach; its label or caption. Many a good article is written which few people read because its title fails to grip their attention. The purpose of a title or an illustration or some striking form of presentation is to get the eyes and thought, momentarily at least, turned in the direction of what you want to be seen and to be understood.

"Second," I continued, "is to convert attention into interest. Unless this is done your arresting shout or gesture or whatever it may be is wasted. Folks glance at many things, their attention caught for a moment, but not held by a developed interest. You must follow up the winning of attention by at once developing interest, and one of the surest ways to do this is to make some quick contact with the personal interests of your public, to touch them at some point such as business success, home welfare, social ambition, health."

"And then to touch them in their pocket-books," my friend interjected. "Proceed!"

DON'T be in too much of a hurry for the pocket-book touch," said I. "Haste might spoil the whole thing. We have not reached the dotted line yet. The third thing to do is to convert an awakened interest into an informed interest. This is where you begin to tell the details of your plan, or to describe the article which you have been carefully holding behind your back. You now have an attention which has been developed into interest, and interest will listen to informaton. I do not need to say that information must be clearly and interestingly conveyed, with the stress laid upon those facts which are most likely to satisfy the interest you have aroused.

"There is one further step. An informed interest must be brought to the point of responsive action. We assume that your public is now thoroughly convinced of the soundness of your idea and of its great desirability. The next thing is to persuade it that no time should be lost in acquiring possession of what you have to offer as an embodiment of the idea. The easier you make it to do this, the likelier you are to get the response which you have been seeking.

"Now you have my secret—Attention, interest, informed interest and finally responsive interest. It is a simple formula, but sound and effective, whether it be used for making a speech, writing an editorial or preparing an advertising pamphlet. To omit any one of the four steps is to weaken all the others, and to introduce matter which has no pertinence to any of the four is no less a mistake and an injury to effectiveness."

"Well, I admit that sounds like common sense to me," said my friend, "and so simple I might have thought it out for myself."

"These simple things," said I, "are usually worked out before they are thought out. I had come to practise my formula through experience long before I recognized it. Now take my further free advice, and go get somebody who knows how to apply it to your problem."

Washington Convention

(Continued from page 14)

THURSDAY brought a climax to the routine business of the week, and also the opportunity of hearing Governor Ritchie of Maryland. This distinguished speaker made an eloquent plea for "Less Government in Business and More Business in Government," and pleased a responsive audience with his logic and personality.

James L. Madden, Third Vice-President of the Metropolitan Life Insurance Company, was another speaker who caught the attention of the crowd as he bespoke the necessity of setting a proper value on the human element in Insurance. His address was a graceful and authoritative statement of "The Opportunity of American Insurance," delivered with the most engaging charm of manner.

Officers chosen for the coming year will be listed at the conclusion of this article.

The gem of all the sight seeing trips was reserved for Thursady when a trip was made to Mt. Vernon via the Potomac River. The beauties of the landscape, and the historic interest of the handsome residence of George Washington on the hill overlooking the neatest and greenest of lawns and the sweeping waters of the mile-wide stream, put a romantic period to four days of supreme enjoyment.

MR. BUXTON, at the banquet on Thursday evening, with oratorical finish, and great good humor, introduced the toast master, L. Pierce Boteler of Washington, D. C., who jovially presented F. J. Martin, H. P. Janisch and others who made short and zestful speeches.

Golf trophies were presented and Mr. Buxton was surprised with a gift in token of appreciation of the good service he had rendered during the past year.

Then at nine-thirty, it being September 22nd, the delegates adjourned to an adjacent room and listened raptly as a radio gave details of a certain event then current in Chicago.

The list of officers follows:

National Association of Mutual Insurance Companies

President—Henry R. Gibbel*, Lititz, Pa.
Vice President—F. J. Martin, Seattle, Wash.
Secretary—Harry P. Cooper, Crawfordsville, Ind.
Treasurer—F. B. Fowler, Indianapolis, Ind.
Past President Ex Officio—C. I. Buxton, Owatonna, Minn.

Directors

L. R. Welch, Fitchburg, Mass.; Justin Peters, Philadelphia, Pa.; Geo. W. Miller, Bucyrus, O.
O. E. Hurst, Millersburg, Ky.

Federation of Mutual Fire Insurance Companies

President—Burton S. Flagg, Andover, Mass.
Vice-President—A. D. Baker, Lansing, Mich.
Secretary-Treasurer—A. V. Gruhn, Chicago, Ill.

Governing Board

Messrs. Geo. A. McKinney, Alton, Ill.; Robert A. Barbour, Pittsfield, Mass.; Thos. G. McCracken, Minneapolis, Minn.; A. W. Campbell, Boston, Mass.; Burton S. Flagg, Andover, Mass.; Frank Bishop, Pawtucket, R. I.; John Hoffa, Wilkes-Barre, Pa.; F. J. Martin, Seattle, Wash.; E. S. Nail, Mansfield, Ohio.; Justin Peters, Philadelphia, Pa.; C. A. L. Purmort, Van Wert, Ohio.; Glen Walker, Fort Worth, Tex.
National Councillor—Frank Bishop.

**It is with great regret that we learn of Mr. Gibble's death on October 8th.—Editor.*

Railway Accident Prevention

(Continued from page 11)

THE Safety Department of the Canadian National Railways has introduced a device which can be installed on hand cars and motors to prevent derailment so common to these vehicles. The need of such a device is apparent especially when one considers the large number of serious accidents that have occurred by derailment of these so called speeders. In the United States, sixty-three persons were killed and 4,471 injured according to 1926 statistics of the Interstate Commerce Commission, due to accidents to these cars. On the Canadian National Railways operating over 22,500 miles during the year 1926, there were four deaths and eighty injuries.

The safety device used by this line consists of four metal brackets placed in the front and rear of the wheels, bolted to the frame of the car both horizontally and vertically. Extensive tests were made in one of the Canadian National's Western yards with a gasoline car to which these brackets were applied. In order to derail the car, an oak wedge, about five feet long and depth of rail, was placed on the inside of one of the rails, resting on the ties. This wedge tapered from zero to three inches thick while centrally located on the opposite rail and secured to the top of it, with set screws, was a metal wedge twelve inches long, tapering from zero to about one and one-half inches thick. It will be seen that the latter raised the car from one rail whilst the former left the rail by means of the oak wedge and derailed the four wheels, but the brackets held the car on the rails. The brackets in question act as a skid or brake on the rails. During these various tests the speed varied from ten to thirty miles per hour with the results aforementioned.

Altogether, there is still much to be done in safety work. But that is very much as it should be. The work will probably continue to progress, and fewer accidents will be reported. Yet despite every precaution, there will very likely always be some accidents, for accidents after all are a part of life itself.

Chicago Fire

(Continued from page 8)

pled and fell, and the flames rolled on for fresh fuel. Business men driven from the South Side by the heat stood near the River, and tears rolled down their faces as the fortunes of a lifetime's hard labor melted away into the burning mass. The scene was appalling beyond description and fearfully grand. Soon daylight came; the sun was well up before it was hardly noticeable on account of the lurid sky overhead, and with it was no token of encouragement; on the contrary the wind seemed to increase almost to a gale as the unrestrained flames swept onward in their work of destruction on the North Side. We went out to breakfast about seven o'clock in the morning, tired of the sad sight, magnificent as it was."

Right after breakfast Samuel Beach with two other men started out again in an effort to get near the wrecks of their offices. They found the Madison Street bridge and all the other bridges destroyed as far as Twelfth Street, where they crossed to the South Side and went over to Michigan and Wabash Avenues, supposing the fire was moving Northward and had left

(Continued on page 30)

Development of Aviation Insurance

Scope and Nature of This Interesting and Comparatively New Branch of Underwriting

By STEPHEN B. SWEENEY

Assistant Professor of Insurance
Wharton School of Commerce
University of Pennsylvania

ARTICLE II

REVIEW OF AVIATION INSURANCE IN EUROPE

THE first policy of aviation insurance is supposed to have been written in England in 1912. The hazards were assumed by members of Lloyd's after the risk had been examined and estimated by an English broker now active in aviation insurance underwriting in the United States.

From the time of this first policy to the beginning of the World War, the policies issued were few and far between. There was no regular operation of aircraft so the risks covered were always individual ones. They were underwritten on the same principle that the members of Lloyd's presumably use when they assume the many unusual risks by which the newspapers continually call our attention to this historic organization. The wide spread of many heterogenous risks, with the consequent more or less perfect operation of the law of average, is the one feature that removes such underwriting from the realm of pure gambling.

The Rugged Portions of France While Picturesque Beyond Adaquate Desccription. Yet Furnish Extraordinary Problems to the Airplane Traveler Who Must Make An Emergency Landing

The four years of the World War found practically all European aircraft operations under the direct supervision of the various military departments. This put a stop to the timid underwriting activities of the pre-war years.

As has been indicated, aircraft underwriting could not be considered until there were more than mere sporadic undertakings over which to spread the hazards assumed. Such conditions were not existent until the year 1919 when commercial aviation was seriously undertaken in most European countries. The leading governments granted extensive and increasingly generous subsidies to those interested in aircraft transportation. The sale of war supplies at bargain prices made this new form of enterprise especially attractive to the ever present promoter. So-called regular air-lines literally sprang up over night and soon the more populous centers of Europe were connected by daily or intermittent passenger and express-freight planes.

Such development immediately aroused the interest of general underwriters throughout Europe. Some governments requested them to lend their all essential support. The countries that led the way, and are still the only ones heard from in the field of aircraft insurance, are England, France, Germany and the combined Scandinavian countries.

Relative Importance of the Various Countries.

IT is difficult to measure the relative importance of the European countries as to underwriting activity. The amount of coverage granted might be used as a criterion, but this is impossible for two reasons. The coverage is so heterogeneous that a grand total of insurance of all kinds would be misleading, i. e., merely combining cargo, fire and theft with public liability for personal injury and property damage. The latter are quoted on different bases than are the former, as will be shown in later articles. Very closely formed pools control the bulk of the business in Europe and the results of their activities are treated as professional secrets. Thus, we must be satisfied with the estimates of those more or less familiar with insurance conditions in the countries mentioned.

English Conditions

ENGLAND seems to be the natural starting point for any discussion of aviation insurance even though in the early days of commercial aviation the development was so general throughout Europe that the underwriters naturally rose up on all sides to satisfy the general demand. In 1919 there were in London, four companies which dealt with all classes of risk, and an association of some thirty tariff companies which, although formed for transacting all aviation business, was chiefly de-

voted to covering life insurance of pilots and passengers. In these early days the English aircraft insurance market was unique in the independent activity of many underwriters developing the business in their individual ways. This was the opposite of the condition in other European markets where the underwriters were just as numerous but were acting concertedly through pools. A cry was heard even in those most pioneer days that has come down through the years and is still largely unanswered. It was for reliable data of any and every sort on which quotations could be based.

Lloyds had long maintained its famous Register of Shipping for marine insurance and it seemed natural that it should do likewise for aviation insurance. It must be remembered that marine insurance rates have always been the result of judgment, and from present indications will remain so for some time to come. The hazards seem too complex and inter-related to be put on a statistical basis. The above mentioned register was expected to do for aircraft underwriters what the marine register had done for marie underwriters, i. e., take the judgment rates out of the realm of pure guesswork. An Aviation Committee was formed at the end of 1919 and in June 1920 an Aviation Department was organized at Lloyd's and work was commenced on the compilation of the desired books. A book recording particulars of every aircraft registered in Great Britain was brought out in 1920. One of all the pilots holding British civil aviation licenses was brought out in February 1921. The pilots register has been of great use to underwriters and others interested in aviation, while the aircraft register, though of more limited utility, serves to some extent as a guide. The importance of the pilot register will be more apparent when the correlation between this individual's ability and the hazard the underwriter assumes is explained later.

THE group, or pool, of thirty large British accident insurance companies and the Aviation Insurance Association (already mentioned as four all-round underwriters, including one group of 250 Loyd's members) were supplemented at the close of 1919 by the White Cross Aviation Insurance Association. This consisted of four insurance companies together with another group of Loyd's members.

The rapid development of this form of insurance underwriting in England was probably fostered by the early post-war activity of the British Government. The signing of the International Convention of Air Navigation in 1919 was followed by immediate activity in putting its provisions into effect. Regulations for the issuance of pilots' licenses and certificates of air-worthiness for passenger-carrying aircraft, were soon promulgated. A Civil Aviation Advisory Board was provided to insure the safe and efficient operation of civil aircraft. This all probably explains the reputed excellent safety record of the British subsidized air-lines.

Despite this alleged excellent safety record, the British underwriters became disinterested in the new field of enterprise and the years 1921, 1922 and 1923 found them rapidly curtailing their activities and leaving the field to a few of the most energetic. "Things have reached such a point (1923) that the bulk of the aviation insurance *in Europe* is being done in London by a few underwriters," said A. L. Sturge, the Chairman of Lloyds. "This is because other underwriters found the business unprofitable and therefore, withdrew from it, and there is, we believe, no reason to suppose that the remaining underwriters are rolling in the lap of affluence, but they are showing extraordinary tenacity and enterprise in face of severe losses, and will richly deserve any reward that the future may have in store for them."

BY the close of the year 1923, practically all of the British companies had discontinued the writing of the aircraft hazards. In 1924 they timidly re-entered the field. The White Cross Aviation Insurance Association (still composed largely of members of Lloyd's) was rejuvenated and it began anew its former activities. The Union Insurance Society of Canton, Ltd., also re-entered the deserted field. At the beginning of 1924, the interests controlling these two groups decided that in view of the limited volume of business available and in order that the best possible statistics might be calculated at the minimum cost, it was best to pool the business of the two groups and to manage the business from one central office. This union resulted in a broad revision of policy forms which differed materially from those previously used. Every effort was made to construct documents as free of complications and vexations as possible.

Need for Insurance Is Now Plainly Indicated For Aviation Activities

One or two other companies are still mentioned in the European insurance literature, but there is reason to believe that the above mentioned pool dominates the European field. Information from Germany that since 1925 a complete agreement on numerous important points of the English, French, German and Italian hull policies has been achieved substantiates the statement of a European agent in this country that the British pool practically controls aircraft insurance throughout Europe.

French Conditions

FRANCE was the first country which was joined to England by air routes. Early in 1919 a regular passenger service was started and was soon heavily patronized, by American tourists particularly. The French underwriters were slow to respond to the spontaneous demands for coverage. However, on statistics obtained from the Government they built a tariff; then they formed an association of the important direct and reinsurance companies, and *finally declared their tariff obligatory.*

Thus we see a pool of about thirty companies controlling the aviation insurance situation in France from the very outset. It promulgated rules and regulations for the writing of all risks. Each company shared in a determined proportion each risk taken by any one of them and ultimately the profits and losses were likewise distributed among all the members. As usual, the control of the Pool was in the hands of one of the strongest companies, a prominent

(Continued on page 29)

The Rainfall Hazard

Fundamental Factors Related to This Weather Risk and Their Practical Application to Underwriting

By COLONEL JOHN P. FINLEY

Consulting Meteorologist and Manager National Storm Insurance Bureau, New York City

Article IV. Rainfall Diurnals.
SEVENTH SECTION.

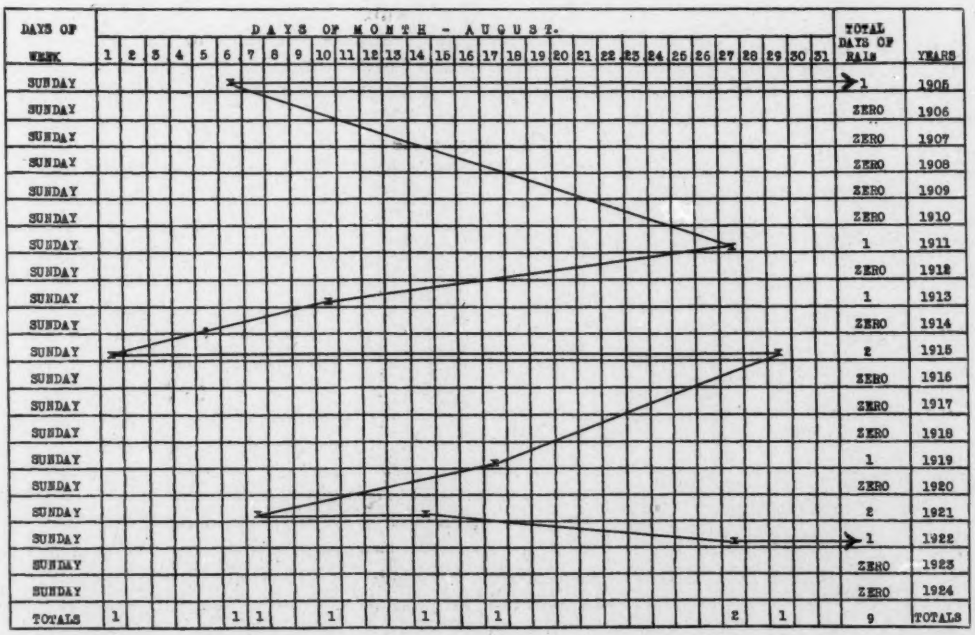
WE have sketched rather rapidly the development of our planet, from the state of chaos to the state of organized fundamental elements; the interaction of which, under the influence of solar radiation, produces light, heat and life; organic life, starting with the egg, and inorganic life, with the molecule. According to the observation and deduction of astronomical research, the planet Jupiter today is in the chaotic stage of its existence. The whole homeogeneous mass is in constant turbulence with waves of more than 100 miles in height. The earth has progressed from that stage, perfected through the changes of a transitional period of geological time, indefinitely expressed as "millions of years."

According to the laws of Chaos, Development and Unity, the primitive elements of the earth first existed as nebulae, floating in the celastial spaces. Finally the nebula of the earth, in the general circulation of limitless space, became separated from the formless nebulae of that boundless region, and the gaseous mass entered upon the first stage of its existence in the chaotic, inorganic state. The indefinite expansion of the gaseous state was counterbalanced by the principle of concentration (gravitation), bringing the molecules nearer together and grouping them in a spheroidal mass. Here we have the point of departure from the general nebulae of celestial space. The specific nebula of the earth is detached from the general mass, in the form of a luminous spheroid, traced in the obscurity of the heavens, indicating the first step in the process of formation. This gaseous spheroid, in the ceaseless circulation of celestial space, then resolves itself into local agglomerations, which, while concentrating, each in itself, under the influence of gravitation and chemical combinations, separate from each other into the distinct spheres of our solar system. This constitutes one of the essential and incontestable phases of the system.

GRADUAL concentration permits successively the combination of the multitude of different bodies, placing them in a group, where they can react upon each other, to form a spheroidal mass. In this manner, the primitive elements of the earth nebula came into association in the form of a single gas, that finally, through the influence of circulation, opposition and unity, assumed the three fundamental forms of gaseous, liquid and solid matter. These elements arranged themselves in the order of their density, in the spheroidal mass, with a highly heated, solidifying core at the center, enveloped, first, by a liquid, and secondly by a gaseous envelope, constituting respectively the ocean and the primeval atmosphere. In the first stages of development, manifesting naturally at the surface, only two elements were in contact, the air and the water, developed from the spheroidal nebula of chemical reaction.

PLATE NUMBER I

Rainfall Diurnals—Rainfall Occurrence—August. Correlation of Days of the Week (Sunday) with a Tenth (0.10) of an Inch or More of Rainfall Between the Hours of 2 P. M. and 9 P. M. During a Period of Twenty Years (1905 to 1924 Inclusive) at the U. S. Weather Bureau Station, New York City.


DAYS OF WEEK
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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
TOTAL DAYS OF RAIN
YEARS
SUNDAY 1 1905
SUNDAY ZERO 1906
SUNDAY ZERO 1907
SUNDAY ZERO 1908
SUNDAY ZERO 1909
SUNDAY ZERO 1910
SUNDAY 1 1911
SUNDAY ZERO 1912
SUNDAY 1 1913
SUNDAY ZERO 1914
SUNDAY 2 1915
SUNDAY ZERO 1916
SUNDAY ZERO 1917
SUNDAY ZERO 1918
SUNDAY 1 1919
SUNDAY ZERO 1920
SUNDAY 2 1921
SUNDAY 1 1922
SUNDAY ZERO 1923
SUNDAY ZERO 1924
TOTALS 1 1 1 1 1 2 1 9 TOTALS

Observations Made by Automatic Self-Recording Raingage and Checked with a Direct-Measurement Non-Recording Raingage. Both U. S. Weather Bureau Standard Instruments Located on the Roof of the Station Building, New York City, 394 Feet Above Sea-Level. The Letter (X) in the Rainfall Line Distinguishes the Day and Year of Measured and Recorded Precipitation. The Curve-Graph Lines Are Formed on a Uniform Basis and Progress From Left to Right in Regular Sequence.

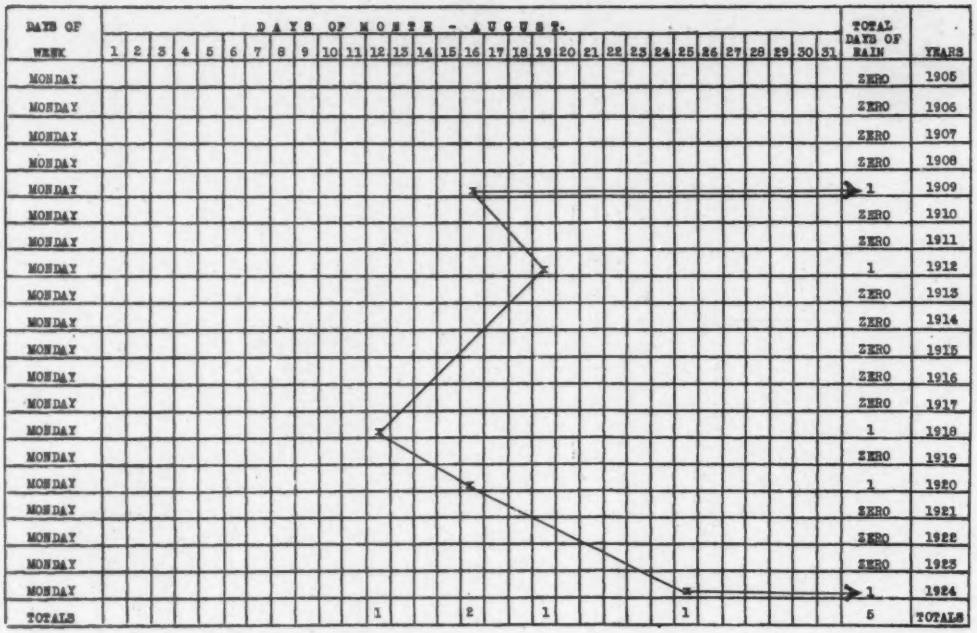

DAYS OF WEEK
DAYS OF MONTH - AUGUST.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
TOTAL DAYS OF RAIN
YEARS
MONDAY ZERO 1905
MONDAY ZERO 1906
MONDAY ZERO 1907
MONDAY ZERO 1908
MONDAY 1 1909
MONDAY ZERO 1910
MONDAY ZERO 1911
MONDAY 1 1912
MONDAY ZERO 1913
MONDAY ZERO 1914
MONDAY ZERO 1915
MONDAY ZERO 1916
MONDAY ZERO 1917
MONDAY 1 1918
MONDAY ZERO 1919
MONDAY 1 1920
MONDAY ZERO 1921
MONDAY ZERO 1922
MONDAY ZERO 1923
MONDAY 1 1924
TOTALS 1 2 1 1 5 TOTALS

PLATE NUMBER II

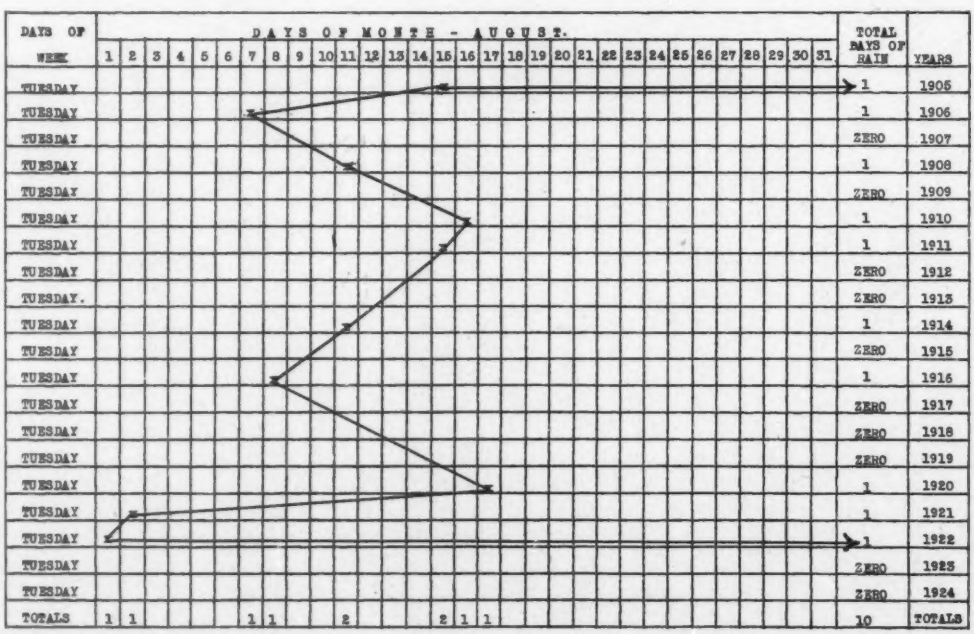
Rainfall Diurnals—Rainfall Occurrence, August. Correlation of Days of the Week (Monday) with a Tenth (0.10) of an Inch or More of Rainfall Between the Hours of 2 P. M. and 9 P. M. During a Period of Twenty Years (1905 to 1924 Inclusive) at the U. S. Weather Bureau Station, New York City.

Observations Made by Automatic Self-Recording Raingage and Checked with a Direct-Measurement Non-Recording Raingage. Both U. S. Weather Bureau Standard Instruments Located on the Roof of the Station Building, New York City, 394 Feet Above Sea-Level. The Letter (X) in the Rainfall Line Distinguishes the Day and Year of Measured and Recorded Precipitation. The Curve-Graph Lines Are Formed on a Uniform Basis and Progress From Left to Right in Regular Sequence.

The constituent elements of the air are oxygen, nitrogen, carbonic acid, vapor of water and dust. The gases are perfectly mixed, in extraordinary uniformity, throughout the Globe, not chemically combined. Water (hydro-monoxide) is composed of two parts of hydrogen and one part of oxygen, being the most variable component (water-vapor) of the air, and is produced by the burning of hydrogen in air or oxygen. In the laboratory of nature, large quantities of water are readily produced and therefore, in the primitive stages of our planet, air and water were the first two elements brought into contact. A high degree of heat was present from the beginning, not only arising from chemical and physical changes, but from solar radiation. The lowest order of organic life, both plants and animals, began in the water masses of the spheroidal planet. It marked the dawn of life and the infancy of the animal and vegetable kingdoms. As development progressed a new difference, in the train of

PLATE NUMBER III

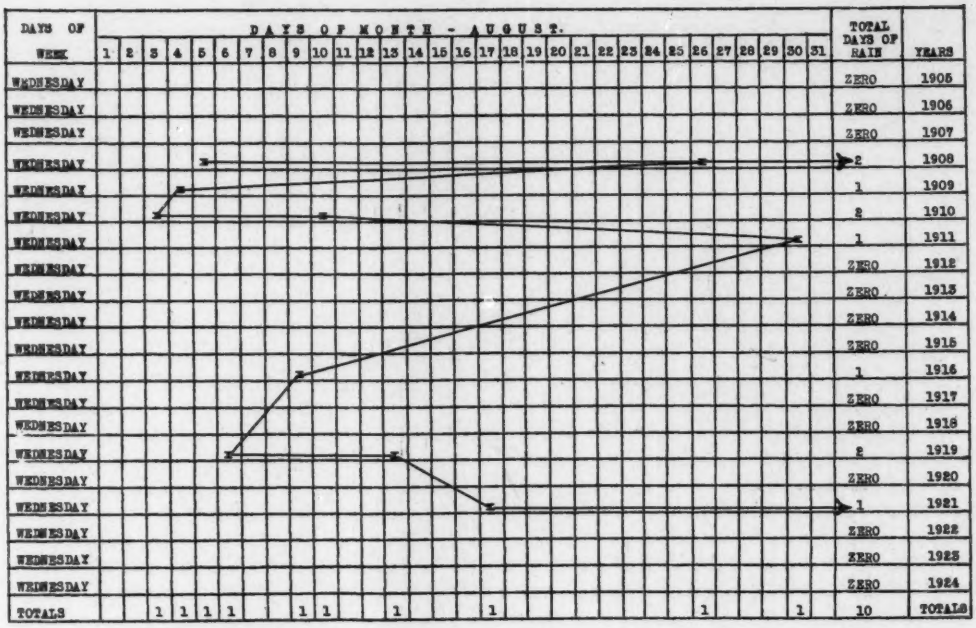
Rainfall Diurnals—Rainfall Occurrence, August. Correlation of Days of the Week (Tuesday) with a Tenth (0.10) of an Inch or More of Rainfall Between the Hours of 2 P. M. and 9 P. M. During a Period of Twenty Years (1905 to 1924 Inclusive) at the U. S. Weather Bureau Station, New York City.


DAYS OF WEEK
DAYS OF MONTH - AUGUST.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
TOTAL DAYS OF RAIN
YEARS
TUESDAY 1 1905
TUESDAY 1 1906
TUESDAY ZERO 1907
TUESDAY 1 1908
TUESDAY ZERO 1909
TUESDAY 1 1910
TUESDAY 1 1911
TUESDAY ZERO 1912
TUESDAY. ZERO 1913
TUESDAY 1 1914
TUESDAY ZERO 1915
TUESDAY 1 1916
TUESDAY ZERO 1917
TUESDAY ZERO 1918
TUESDAY ZERO 1919
TUESDAY 1 1920
TUESDAY 1 1921
TUESDAY 1 1922
TUESDAY ZERO 1923
TUESDAY ZERO 1924
TOTALS 1 1 1 1 2 2 1 1 10 TOTALS

Observations Made by Automatic Self-Recording Raingage and Checked with a Direct-Measurement Non-Recording Raingage. Both U. S. Weather Bureau Standard Instruments Located on the Roof of the Station Building, New York City, 394 Feet Above Sea-Level. The Letter (X) in the Rainfall Line Distinguishes the Day and Year of Measured and Recorded Precipitation. The Curve-Graph Lines Are Formed on a Uniform Basis and Progress From Left to Right in Regular Sequence.

PLATE NUMBER IV

Rainfall Diurnals—Rainfall Occurrence, August. Correlation of Days of the Week (Wednesday) with a Tenth (0.10) of an Inch or More of Rainfall Between the Hours of 2 P. M. and 9 P. M. During a Period of Twenty Years (1905 to 1924 Inclusive) at the U. S. Weather Bureau Station, New York City.


DAYS OF WEEK
DAYS OF MONTH - AUGUST.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
TOTAL DAYS OF RAIN
YEARS
WEDNESDAY ZERO 1905
WEDNESDAY ZERO 1906
WEDNESDAY ZERO 1907
WEDNESDAY 2 1908
WEDNESDAY 1 1909
WEDNESDAY 2 1910
WEDNESDAY 1 1911
WEDNESDAY ZERO 1912
WEDNESDAY ZERO 1913
WEDNESDAY ZERO 1914
WEDNESDAY ZERO 1915
WEDNESDAY 1 1916
WEDNESDAY ZERO 1917
WEDNESDAY ZERO 1918
WEDNESDAY 2 1919
WEDNESDAY ZERO 1920
WEDNESDAY 1 1921
WEDNESDAY ZERO 1922
WEDNESDAY ZERO 1923
WEDNESDAY ZERO 1924
TOTALS 1 1 1 1 1 1 1 1 2 10 TOTALS

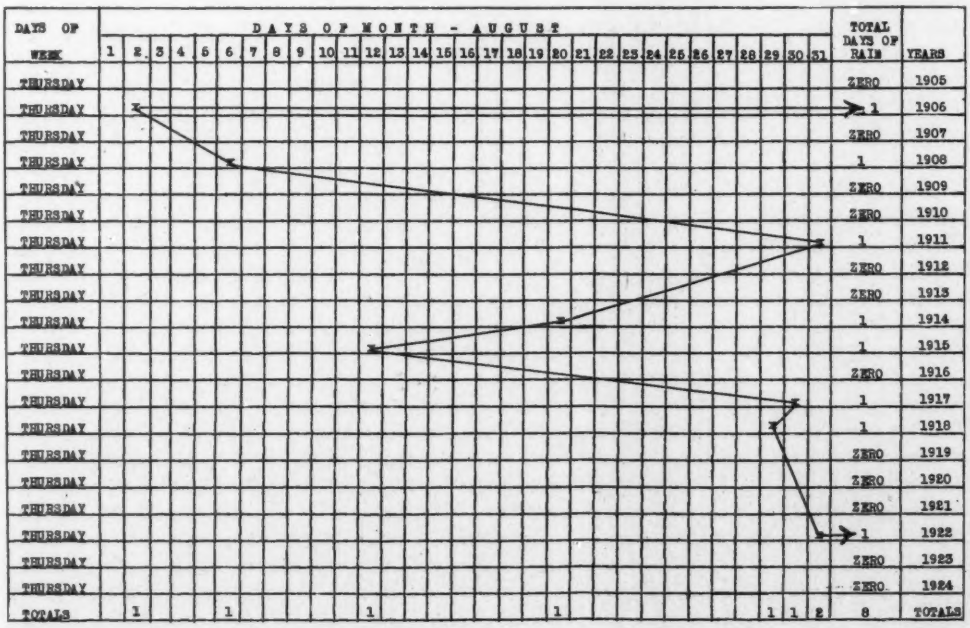
Observations Made by Automatic Self-Recording Raingage and Checked with a Direct-Measurement Non-Recording Raingage. Both U. S. Weather Bureau Standard Instruments Located on the Roof of the Station Building, New York City, 394 Feet Above Sea-Level. The Letter (X) in the Rainfall Line Distinguishes the Day and Year of Measured and Recorded Precipitation. The Curve-Graph Lines Are Formed on a Uniform Basis and Progress From Left to Right in Regular Sequence.

internal movements, made its appearance, resulting from the natural cooling of the planet, the third element, the solid (the earth) quitting the place its weight had assigned to it, rises from the bed of the boundless ocean. It lifts itself above the level of the waters, cuts the surface, puts itself in contact with the atmosphere, from which it had been separated by the whole thickness of the primeval ocean, and warms itself in the life-giving rays of the sun. This fact of the appearance of the firm earth above the waters of the oceans, contributed immensely to the rise and growth of the life of the planet.

HENCEFORTH, the three forms of primeval matter, the atmosphere, the seas and the lands, absorbing the solar heat, in an unequal manner, the ancient equilibrium is destroyed; the winds and the currents are modified in their march over the face of the spheroidal mass; the climates are more

PLATE NUMBER V

Rainfall Diurnals—Rainfall Occurrence, August. Correlation of Days of the Week (Thursday) with a Tenth (0.10) of an Inch or More of Rainfall Between the Hours of 2 P. M. and 9 P. M. During a Period of Twenty Years (1905 to 1924 Inclusive) at the U. S. Weather Bureau Station, New York City.


DAYS OF WEEK
DAYS OF MONTH - AUGUST
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
TOTAL DAYS OF RAIN
YEARS
THURSDAY ZERO 1905
THURSDAY 1 1906
THURSDAY ZERO 1907
THURSDAY 1 1908
THURSDAY ZERO 1909
THURSDAY ZERO 1910
THURSDAY 1 1911
THURSDAY ZERO 1912
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THURSDAY 1 1914
THURSDAY 1 1915
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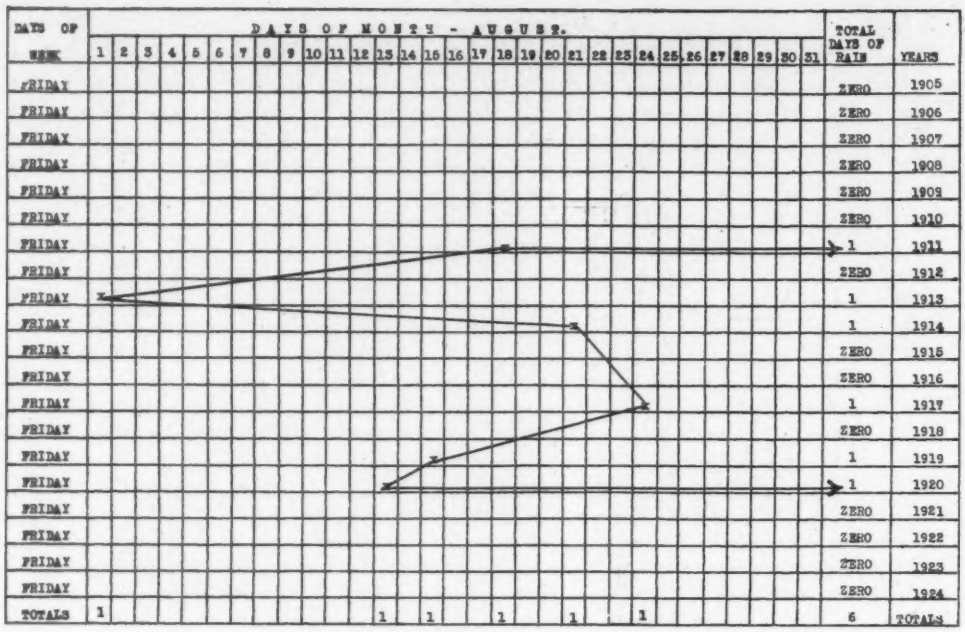
THURSDAY 1 1917
THURSDAY 1 1918
THURSDAY ZERO 1919
THURSDAY ZERO 1920
THURSDAY ZERO 1921
THURSDAY 1 1922
THURSDAY ZERO 1923
THURSDAY ZERO 1924
TOTALS 1 1 1 1 1 2 8 TOTALS

Observations Made by Automatic Self-Recording Raingage and Checked with a Direct-Measurement Non-Recording Raingage. Both U. S. Weather Bureau Standard Instruments Located on the Roof of the Station Building, New York City, 394 Feet Above Sea-Level. The Letter (X) in the Rainfall Line Distinguishes the Day and Year of Measured and Recorded Precipitation. The Curve-Graph Lines Are Formed on a Uniform Basis and Progress From Left to Right in Regular Sequence.


DAYS OF WEEK
DAYS OF MONTH - AUGUST.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
TOTAL DAYS OF RAIN
YEARS
FRIDAY ZERO 1905
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FRIDAY ZERO 1921
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FRIDAY ZERO 1923
FRIDAY ZERO 1924
TOTALS 1 1 1 1 1 6 TOTALS

PLATE NUMBER VI

Rainfall Diurnals—Rainfall Occurrence, August. Correlation of Days of the Week (Friday) with a Tenth (0.10) of an Inch or More of Rainfall Between the Hours of 2 P. M. and 9 P. M. During a Period of Twenty Years (1905 to 1924 Inclusive) at the U. S. Weather Bureau Station, New York City.

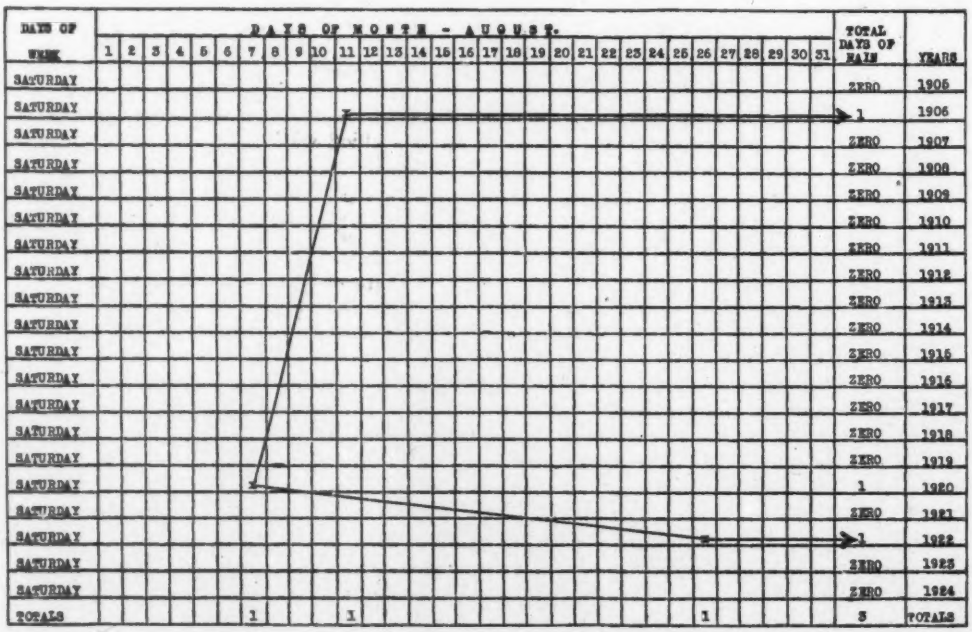
Observations Made by Automatic Self-Recording Raingage and Checked with a Direct-Measurement Non-Recording Raingage. Both U. S. Weather Bureau Standard Instruments Located on the Roof of the Station Building, New York City, 394 Feet Above Sea-Level. The Letter (X) in the Rainfall Line Distinguishes the Day and Year of Measured and Recorded Precipitation. The Curve-Graph Lines Are Formed on a Uniform Basis and Progress From Left to Right in Regular Sequence.

varied; the rains become more useful, and henceforth water and fertilize the land. Finally, the new element makes possible the appearance of a greatly superior organic life, and becomes the seat of vegetation, and an animal world of a much higher degree of perfection, than previously existed. A notable victory has been gained by organized life over inorganic matter, compelling the former to serve a more exalted purpose. Geology demonstrates, that in the earliest ages of the epoch of organic life on the earth, the organic epoch, the firm lands are reduced to a few islands only, scattered over the surface of the oceans.

Everywhere, the beginnings are modest. The places of the future continents, are not yet marked, except by a few scattered islets, forming here and there a few archipleagos. It is the insular epoch, comprising all of the earliest ages of geology, beginning in Europe with the Silurian Epoch, the most ancient of fossiliferous strata, and in North America at the Coal

PLATE NUMBER VII

Rainfall Diurnals—Rainfall Occurrence, August. Correlation of Days of the Week (Saturday) with a Tenth (0.10) of an Inch or More of Rainfall Between the Hours of 2 P. M. and 9 P. M. During a Period of Twenty Years (1905 to 1924 Inclusive) at the U. S. Weather Bureau Station, New York City.


DAYS OF WEEK
DAYS OF MONTH - AUGUST.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
TOTAL DAYS OF RAIN
YEARS
SATURDAY ZERO 1905
SATURDAY 1 1906
SATURDAY ZERO 1907
SATURDAY ZERO 1908
SATURDAY ZERO 1909
SATURDAY ZERO 1910
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SATURDAY ZERO 1917
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SATURDAY ZERO 1919
SATURDAY 1 1920
SATURDAY ZERO 1921
SATURDAY 1 1922
SATURDAY ZERO 1923
SATURDAY ZERO 1924
TOTALS 1 1 1 3 TOTALS

Observations Made by Automatic Self-Recording Raingage and Checked with a Direct-Measurement Non-Recording Raingage. Both U. S. Weather Bureau Standard Instruments Located on the Roof of the Station Building, New York City, 394 Feet Above Sea-Level. The Letter (X) in the Rainfall Line Distinguishes the Day and Year of Measured and Recorded Precipitation. The Curve-Graph Lines Are Formed on a Uniform Basis and Progress From Left to Right in Regular Sequence.

Epoch, which, although a little more recent, begins almost at the same age. At this time the extensive coal fields of the Middle Atlantic States were forming, and the ocean made a deep gulf running half-way up the Mississippi Valley. The vast plains, west of the Mississippi, the Rocky Mountains, the Plateaus, and the snow-capped chains, from Mexico to the Arctic, were still at the bottom of the sea. The mountains are few in number, and but slightly elevated. The valleys are not traceable. Extensive, low and swampy regions, indicate the preponderance of the water areas. A thicker and denser atmosphere equalizes the temperatures. The extension of the water zones dominate. None of the varied forms of vegetation show themselves at this period. The few organized beings show the prevailing character of uniformity and inferiority, characteristic of the ocean areas. The Trilobites of the Silurian Epoch are found, identical in their species, at once in America, in Europe, in Africa and in Scandinavia. The vegetables accumulated in the coal-beds are the same at the poles and the equator. The highest beings of this primitive creation characterize the embryo, in the early periods of its development. The demonstration is apparent that the diversity of terrestrial forms, the variety of types, and the species of organized beings, become always greater and greater. Every new revolution is a new progress. The terrestrial masses gradually enlarge in number and size; their contours more varied and their surfaces more broken up. The natural physical regions are determined and take their distinctive character. The climates are diversified with all the physical circumstances of a country, and are reflected in the ever-increasing diversity of animal and vegetable genera and species. In the meantime this movement of specialization is not going to extremes. The masses of earth, while becoming more numerous, more various, more diversified in shape, are grouping themselves more and more. The contours of the continents are getting better defined and the tertiary basins are filling and drying-up.

The water of the seas is disappearing from the interior. The atmospheric waters (all forms of precipitation) are beginning to take the place of the oceanic waters. The rains scoop out the valleys, make the slopes regular,

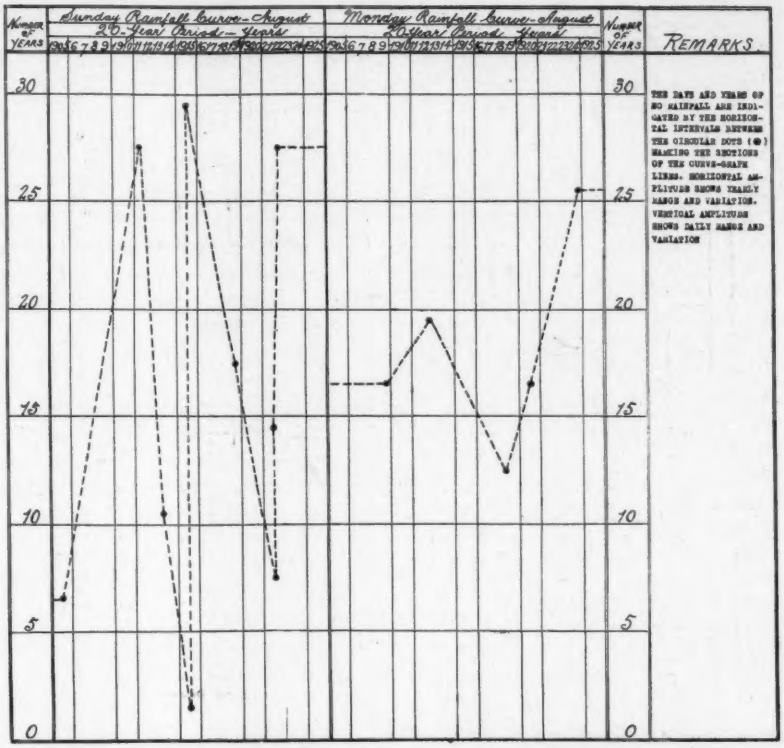

PLATE NO. VIII. Daily Rainfall Curves—August. For the Crucial-7-Hour-Hazard 2 P. M. to 9 P. M. and the Crucial-Wetting-Loss-Hazard of a Tenth of an Inch or More.

Observations Made by Automatic Self-Recording Raingage and Checked With a Direct-Measurement Non-Recording Raingage. Both U. S. Weather Bureau Standard Instruments Located on the Roof of the Station Building, New York City, 394 Feet Above Sea-Level. The Circular Dots (●) in the Rainfall Curves Mark the Day and Year of Measured and Recorded Precipitation. The Curve-Graph Lines Are Formed on a Uniform Basis and Progress From Left to Right in Regular Sequence.

form river-beds and equalize the soil, by spreading it over the rich alluvium exposed by the receding of the primeval waters. The diluvial torrents, and the immense glaciers, contemporaneous with this epoch, complete the shaping of the soil, and the preparing of this fertile loam, which will richly repay intensive cultivation. Thus, by a process of admirable simplicity, the diversity of successive elevations is combined into a few great units. The continents appear and these in turn are grouped into two great worlds, the world of land, and the world of water. The earth is ready to receive its ordained regime. The earth is rotating on its polar axis, and takes up a new position with regard to the sun. The seasons are appearing, the atmospheric circulation becomes cyclonic and anticyclonic. As the contours of continents and islands become more definitely defined, great oceanic currents are forming. The equatorial line is more conspicuously outlined. Temperatures are changing, and systems of winds are becoming localized. Storms are crossing in regular lanes the face of the Globe. The trade-winds, westerlies and doldrums are being identified. Weather changes are coming with noticeable regularity. Floods and hurricanes sweep over the land areas and change their surfaces. The Maritime Epoch is at hand. The Continental Epoch beholds the appearance of the superior animals, the mammals, the life of which are almost exclusively attached to the land. The Continental Element triumphs. All the faunas become localized. Each country of the globe has its appropriate animals. The variety of animal life, and of vegetable species grows almost to infinity. But the unity reappears with the creation of Man, who combines, in his physical nature, all the perfection of the animal, who is the end of all this long progression of organized beings.

AS we review the long transition, from the stage of chaos to the perfection of organized life, in man, as exhibited in successive formations; first, of our solar system, then the spheroidal nebula, the

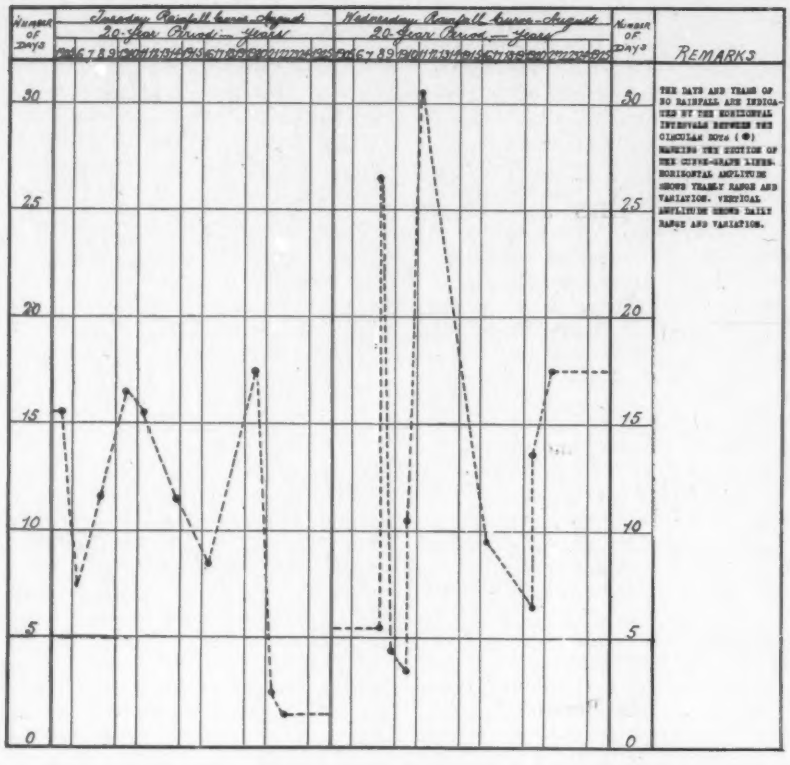

PLATE NO. IX. Daily Rainfall Curves—August. For the Crucial-7-Hour-Hazard 2 P. M. to 9 P. M., and the Crucial-Wetting Loss-Hazard of a Tenth of an Inch or More.

Observations Made by Automatic Self-Recording Rainage and Checked With a Non-Measurement Non-Recording Raingage. Both U. S. Weather Bureau Standard Instruments Located on the Roof of the Station Building, New York City, 394 Feet Above Sea-Level. The Circular Dots (●) in the Rainfall Curves Mark the Day and Year of Measured and Recorded Precipitation. The Curve-Graph Lines Are Formed on a Uniform Basis and Progress From Left to Right in Regular Sequence.

gradual appearance of the continents, the beings inhabiting them, the rising and controlling functions of the atmosphere, together bearing a striking analogy to the formation of the animal in the egg. Do we not see, first, a homogeneous fluid, then the appearance of the elementary organs at several points, and finally, their definitive combination in an organic whole? There is between the two sets of facts all of the difference of organic and inorganic nature, but the formula of development is the same.

Terrestrial masses are combined in groups of continents, according to characteristics of the same nature. Oceanic masses are combined in opposition to continental areas. The atmospheric envelope bridges the dividing gap and makes the inferiority of the latter serve the superiority of the former. Bound together under the Laplacian law of differences and contrasts, the three great fundamental elements, in ordained mutual relations, convert and resolve all oppositions into a grand harmony, where each element has its part to perform, while all live at the same time, a common life. But to arrive at this final result, nature alone is not sufficient. There is needed something more than a physical tie between all these parts of a great and complex world. There is required a moral bond. A soul is wanting to this body to set its organs in action. Wherefore, a supreme directing force has supplied that need in the creation of man as the perfection of organic life, who, through the operation of human agencies, alone can animate the great frame, bind together all the parts and render perfect that organism which is the end and aim of the long procession of existence upon this earth.

The following weather insurance lessons are to be drawn from this discussion:

1. The sources of rainfall supply are cyclonic and oceanic, and must be studied accordingly for beneficial results of practical value, in the game of protection against losses due to this element.

2. Flood losses must be traced back to the places of origin of the cyclonic LOWS, giving rise to them. Some LOWS are more favorable than others to the production of conditions that give rise to excessive rainfalls and cloudbursts.

3. The great cyclonic centers (LOWS) do not originate over the land areas but over the water areas. The land areas do not possess the basic elements necessary to develop cyclonic circulation and thereby produce clouds, fogs and rainfall. This is the function of the water areas.

4. The land areas, however, do cause deviations in wind directions and in ocean currents that aid in setting up opposition in basic elements, which contribute materially to the formation of convectional currents over the water areas, that eventually produce cyclonic circulation which starts the movement of the rain-producing LOWS. Land areas deflect ocean currents and set up new and opposing wind directions. Great elevations in land areas have striking effect on passing LOWS causing most of their moisture to be deposited on the windward side. The interception of the Pacific Coast ranges to the passage eastward of the Pacific LOWS was the immediate cause of the Great American Desert, on the plateaus between those ranges and the Rocky Mountains.

5. Along the northern border of the Equatorial Belt of Calms, entirely around the globe, is the region of the development of the vertical convectional currents that set up the conditions favorable to the formation of storm centers (LOWS). This Belt is broken up by intervening land areas, notably in Central America, the Malay Peninsula and in central Africa. Where the water areas appear the Doldrums are established and their characteristics maintained.

6. After the storm centers (LOWS) are once set up and the convectional circulation gets under way, the ocean currents, into which these centers float, carry them to the land areas, strongly aided by the axial revolution of the earth, taking the atmosphere with it. In the Northern Hemisphere the westerly trend (the region of the Westerlies) is most noticeable above north latitude 30, where the northeasterly trades over the ocean areas die out. The existence of the Westerlies over the land areas is rather difficult to recognize, owing to the frequency

The Rainfall Hazard

of the occurrence of cyclonic and anticyclonic circulation in these latitudes, which, during its prevalence over any district, dominate the wind direction, often to the complete obliteration of the prevailing winds at the surface. In the high latitudes of the Southern Hemisphere the winds blow from the west with a persistency comparable with that of the trade winds, and with much greater force, because of the almost entire absence of the regularity in passage of cyclonic and anticyclonic areas. In Australia these areas, with comparative infrequency, move from NW. to SE. over the northern portions of that continent. We have already called attention to the fact that the Southern Hemisphere is, for the most part, a water area and rainfall is mostly the result of ocean trade winds intercepted by mountain ranges and elevated plateaus.

7. The differences, contrasts, exchanges and oppositions, in the basic elements of solid, liquid and gaseous matter, do not exist alone in them, but are brought about by the reaction between the water and continental areas, under the influence of solar radiation. In the economy of nature the Northern Hemisphere has been reserved for the major portion of this work, where the land areas predominate, the wealth of the world is located and man has reached his highest development; likewise the animal and vegetable kingdoms.

8. Without the heat of the Sun our whole Globe would be dead, and all life and organic matter disappear. All water areas, not lost by evaporation, would freeze up and gradually waste away. The land areas would become uninhabitable. Without the Sun to set up the differences, contrasts, exchanges and opposition between the hemispherical areas of land and water, the three great basic elements essential to organic life would fail to function.

9. All the cyclonic areas (LOWS) that enter the United States come from the adjacent oceans and their branches, in the equatorial belts of the North Atlantic and the North Pacific, where they originally develop. Without the aid of the great warm water areas of the Gulf of Mexico, and the Gulf Stream, flowing from it, the whole United States east of the 110th meridian would be a desert, and the Great Lakes would dry up. The LOWS entering from the North Pacific, as *dry* cyclonic areas would leave the Rocky Mountain Regions with a small barometric gradient and no rain-bearing winds. Most of these areas would fail to reach the North Atlantic.

10. The HIGHS and LOWS shown on Plate XIII, provide the necessary differences, contrasts, exchanges and oppositions, to bring about daily weather changes in the form of clouds, fogs, rain, winds and fair weather. These changes are absolutely necessary to the successful existence of mankind. All kind of weather would make life, industry and agriculture impossible, with anything like the success now achieved.

11. Destructive weather in the United States results from intensified, local developments, during the passage eastward across the country, of cyclonic LOWS, aided by the warm, moist air from the Gulf of Mexico and the Gulf Stream, supplemented by the convectional influence of the Bermuda HIGH, and its eastern extension.

12. The Doldrums of the Equatorial Belt are the regions of opposing winds favorable to the development of convectional and cyclonic circulation. These Doldrums are located on Plates XII and XIII, and distinctly marked, from the African Coast, westward to the China Sea. Daily conditions, in the Doldrums, telegraphed to centers in the United States, would keep the public warned of the probable frequency of cyclonic LOWS, bound for the territory of the United States, and indicate about where they would enter the country, either from the northwest or from the southwest. This information would eventually enable the weather experts to forecast WET and DRY seasons, and the development of LOWS that might give rise to violent local storms in this country, attended by Floods and Destructive Winds.

13. It is evident that the insurance problems connected with the occurrence and distribution of violent local storms, hurricanes, rainfall and floods, frosts, sleet and lightning, cannot be solved without the aid of expert meteorological and climatological service.

Aviation Insurance

(*Continued from page 22*)

accident and casualty insurance company in this case.

Despite such an apparently favorable start, the Pool was soon in difficulties. War statistics are an over-conservative basis for commercial aviation insurance rates. This is particularly apparent when the group using the war statistics premiums is in direct competition with such enterprising risk takers as the British underwriters. The French Pool, after less than a year of activity, was forced to lower its rates twenty per cent to meet the cross-Channel competition. It appears that from that time on, the French underwriters formed a minor part of "the tail of the British kite."

German Conditions

GERMAN commercial aviation has thrived in the face of concerted, stern opposition. The press reports of the meetings during and following the Treaty Conference at Paris continually contained references to the efforts being made to cripple the Germans' air progress. It was not until a number of years after the Armistice that the restrictions on the building and operations of aircraft by Germany were finally removed. This unfriendly atmosphere led to the more-than-usual German secrecy found in the activities of their underwriters in the field of aviation insurance.

It is the feeling of American underwriters that the Germans are in possession of more helpful statistics on experience than are any other underwriters. They possess what little data there is on the commercial operation of lighter-than-air machines, such as dirigibles and Zeppelins.

In 1919 an air-pool was organized by seventeen German insurance companies. The Nord-deutsche Versicherunge - Gesellschaft, Hamburg (The North German Insurance Company) is the leader of this pool. A second pool was formed with the Munich Reinsurance Company at its head. There are eight different underwriting companies in this group.

The first pool mentioned above was sometimes called "The Aviation Pool for Hull Risks." There was incessant competition in Germany during the years following the War with the usual result of dearly bought experience. This experience was capitalized in 1924 with the further cooperation of the majority of underwriters into "The Luftpool von 1924."

The German aviation insurance situation has been made somewhat

(*Continued on page 31*)

Property and Casualty Insurance

(Continued from page 6)

to John Doe and A, in the hope that the final disposition of the funds might be amicably arranged between the two parties. If this could not be done, the mortgagee would receive the proceeds of the draft and he must then credit John Doe with $4,000 on the mortgage note. Another plan would be for the insurance company to pay A directly the sum of $4,000. A would then credit John Doe with $4,000, on the note, thus reimbursing the owner for the damage to his property, and he would get elsewhere the necessary money to repair the house. Another method of settlement that would be equitable, thus working no injustice upon any of the parties concerned, would be to have the insurance company pay John Doe $4,000 with which, it would be arranged, his property would be repaired, thus leaving the note unaffected. Again, the insurance company might pay A the full principal sum of the note—$5,000—thus virtually buying the mortgage from A. The insurance company would then either credit John Doe with $4,000 on the note, or pay him $4,000 with which the house would be repaired. When the note became due payment would be made by John Doe to the insurance company in question.

Whatever the method of settlement effected, the mortgagee's interests would seem to be well protected. On the whole, the use of a mortgagee clause or the embodiment of its substance directly in the text of the insurance contract affords perhaps in most jurisdictions the best method of safeguarding the insurance interest of the mortgagor.

OF the remaining methods of protecting the fire insurance interests of the mortgagee, brief reference only will be made. A method that has had considerable use is the attachment to the insurance policy taken out by the mortgagor of a clause known as the loss payable clause. It is brief, and usually is worded to the effect that "loss, if any, payable to .....mortgagee, as..... interest may appear, subject nevertheless to all the conditions of the policy." In some jurisdictions, the clause gives splendid protection to the mortgagee, notably when the courts regard the attachment of this clause as bringing into existence an entirely new contract between the insurance company and the mortgagor. In other jurisdictions, when the clause is interpreted to mean that the mortgagee is thus merely designated the party to collect the indemnity in behalf of the person in whose name the policy was issued, the protection afforded by the clause is regarded by authorities to be inconsiderable.

Finally, there is the plan which consists in the assignment by a mortgagor of his fire insurance policy to the mortgagee. On the whole, little is to be said in favor of this method. As a rule, the mortgagee by such procedure simply acquires the rights under the policy that the mortgagor had when assignment took place. In the extreme case the policy may have been null and void by some act of the mortgagor before the assignment was made, in which case no protection whatsoever would accrue to the mortgagee. There is little wonder, therefore, that this plan, by a process of selection, should have been supplanted in many jurisdictions by some other improved method, such as the use of the mortgagee clause.

In conclusion, we repeat that lack of uniformity of laws and of procedure in the nearly fifty separate jurisdictions in this country result in lack of standardization of method of protecting the interest of the mortgagee respecting the fire hazard. Protection he gets, however, and good protection, nowadays, and the cost to him under present-day methods is virtually nothing whatsoever.

Chicago Fire

(Continued from page 20)

everything on that side along the Lake Front.

"But a walk of a few blocks," writes the young man, "brought us into a crowd of humanity rich and poor, black and white, flying as if for their lives, and directly in front of us the great tongues of flame lopped off magnificent marble fronts and elegant private residences. The poor worn-out firemen still worked on, but water was useless. Then they commenced blowing up churches and other very large buildings, and for a time it seemed like a race or a struggle between fire and powder for a victim, and building after building crumbled into ruins until a great space was cleared and the flames reached out in vain for fresh fuel."

SAMUEL BEACH'S narrative recounts that the fire in this direction was stayed at Harrison Street, but not until about half of the finest residences on the Avenues were a mass of ruins.

"The entire Lake Front," he continues, "presented a sad spectacle. The sand was covered literally for block after block with the household effects of rich and poor, and on or around them sat or laid the owners. Elegant mirrors with superb oil paintings were scattered on the sand. Here and there the private safe of some wealthy man lay half buried. The Avenues thronged with handsome carriages trailing along with their frightened occupants to a place of safety, and hundreds of express wagons hurried on with their loads, the drivers had no idea where, except to safety."

"Hundreds of the wealthiest families packed their most valuable jewelry and silver-plate in blankets and, slinging them over their backs, locked up their beautiful homes and trudged wearily forth, away from the flames. Others, farther out, after vainly trying to get conveyances to haul away things, and carrying out such as they could, sat down on their doorsteps until the terrible flames should force them to bid farewell to their homes forever and move on with the crowd."

"I have seen many sad sights in war," writes the young ex-soldier, "but I never can forget the scenes of the ninth of October on those Avenues. The attempt to reach our office was of course a useless one, for when the heat from the burning buildings was not so intense, the Nicolson pavement was still a bed of live coals, and progress on the streets was impossible. So back we wandered with the terrified and exhausted crowd until we reached the West Side, thence out home."

Samuel Beach refers to relief measures, and then finishes his letter to his mother with family matters; "Details concerning the provisions made for helping the poor, needy and homeless, thousands of whom fill all our churches, you may find in the copy of the newspaper which I send you with this. We cannot thank you enough, dear Mama, for your kind response to our request for victuals. They came in good order and were so nice."

The Left-Hand Drive

(Continued from page 24)

practical, for a driver who is sitting on the right side of his driving seat in front of a load with even an ordinary overhang.

Liberty Mutual Insurance Company, since the Fall of 1926, has been strenuously advocating to all their commercial fleet policyholders that they change this old custom of their men to driving their teams and wagons from the left hand side of their seats.

This idea has been found to be surprisingly new to many fleet owners who have handled horses and wagons all their lives. The odd thing about the left hand drive idea is, that it is such a simple thought, with such clearly defined advantages.

MANY fleet managers have found a difficult job confronting them in breaking their men into the custom of the new left hand drive. Some of them, convinced of the practicability of the idea, have reconstructed their wagons to the extent of entirely cutting out or eliminating the right hand side of the driving seat, thus forcing the operator to sit upon the left.

Generally, it may be said that the left hand drive for horse drawn teams, and wagons has come to stay. It is believed that Liberty Mutual Engineers were pioneers in advocating this change for greater safety on our streets and for the elimination of many serious accidents although the idea is rapidly gaining headway. The changing of the driver of a horse drawn vehicle from the right to the left hand side of his seat marks another progressive step in safety engineering and also the passing of a rich old tradition.

Aviation Insurance

(Continued from page 29)

more favorable by the paternalistic legislation more or less common in that country. Public liability insurance must be taken out by the operators of any form of aircraft. This legal requirement must be fulfilled before a government license can be obtained. This makes at least one sure market for the underwriters.

The above helpful condition has been apparently offset somewhat by a German practise which would not be countenanced in the United States. The operators are enabled to relieve themselves of all liability to the passengers. This is effected by merely entering into an agreement with the passengers to waive the carrier's liability. A clause printed on the ticket and the acceptance of that ticket constitutes such an agreement.

Scandinavian Conditions

Scandinavian aviation insurance was really started in June 1919 when the Scandinavian Accident Insurance Congress was held in Christiania. A committee was appointed for the purpose of discussing the formation of an "air pool." Various Swedish, Danish and Norwegian companies had already been considering aviation insurance. One of the Norwegian companies had actually started dealings with a foreign insurance group, but decided to await the outcome of the pool discussion. Several meetings were held in Stockholm and Goteburg and finally "The Northern Pool for Aircraft Insurance" was organized and put into operation on October 1, 1919.

This pool consists of a union of eighty Danish, Finnish, Norwegian and Swedish companies. The registry and classification of aircraft and pilots is now systematized in the whole of Scandinavia and is being extended into an institution which can carry out all functions with regard to air traffic as the English Lloyd's and similar institutions.

Present European Tendencies

THE foregoing description has attempted to picture the initial and more or less permanent conditions of aircraft underwriting in the countries mentioned. Aviation insurance is a dynamic enterprise. Conditions govering it are changing and naturally changes in national organization will follow. The outstanding tendency at the present time is toward international cooperation. This is probably prompted by the desire to get a wider spread of risk, and to avoid disastrous rate wars.

BITS OF WIT

When Mercy Seasons Justice

Irvin Wilkes was fined $200 and given $30 in jail by Judge Mears after his conviction on a charge of selling liquor.—*Oregon Journal* (*Portland*).

Happy Contrast

"I shall never marry," Reginald declared, "until I meet a woman who is my direct opposite."

"Well, Reggie," said Mabel, "there are a number of intelligent girls in this neighborhood."—*Epworth Herald.*

The Long and Short of It

"Can you give me a good description of your absconding cashier?" suavely asked the detective.

"We'ell," answered the hotel proprietor, "I believe he's about five feet five inches tall and about $7,000 short."—*Kablegram.*

A Self-Announcer

She: "It's nearly six weeks now since baby was born. Have you told the registrar yet?"

He: "If the registrar lives anywhere within ten miles' radius he'll know already."—*Passing Show* (*London*).

In Other Words

A schoolgirl paraphrased the line "To bicker down the valley," from Tennyson's poem, "The Brook," as follows: "To have an undignified quarrel in a low place among the hills."

Another girl, given the line from "Lochinvar," "He stayed not for brake," paraphrased it: "He never stopt for a mechanical contrivance to reduce speed by means of friction."—*Boston Transcript.*

He Said a Mouthful

Teacher: "Robert, give me a sentence using the word 'satiate.'"

Bobby: "I took Mamie Jones to a picnic last summer and I'll satiate quite a lot."—*The Open Road.*

Burning Words

"My husband is very frank and plain-spoken. He always calls a spade a spade."

"So does mine. But I can't tell you what he sometimes calls his golf-clubs."—*Good Hardware.*

Where Desire Is Drowsy

Nothing works out right. In a town where you can park as long as you want to there is no reason why you should want to.—*Birmingham News.*

Save the Soap

Teacher: "What is the 'Order of the Bath'?"

Kid: "Pa first, then Ma, then us kids, and then the hired girl."—*Life.*

Rival Go-Getters

Flub: "What caused that collision today?"

Dub: "Two motorists after the same pedestrian."—*Judge.*

Arabian Nights

"What, married? Don't make me laugh, stupid. How did you ever get a wife?"

"I just sobered up and there she was."—*Toronto Goblin.*

Flattery Wasted

Terence: "'Tis a fine lad ye have here. A magnificent head and noble features. Could ye lend me a couple of dollars?"

Pat: "I could not. 'Tis me wife's child by her first husband."—*London Telegraph.*

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It Pays Corporations--It Ought to Pay You

You've seen such signs on the rear ends of many trucks. You know that the majority of taxi-cabs and passenger busses stop at all railroad crossings.

It's a corporation rule that governs every driver. The sign is probably used to suggest that it would be a good thing if everybody stopped at all railroad crossings.

Time means as much to large corporations as it does to anyone else—yet they have time to stop at each and every railroad crossing. Time means a lot to taxi-cab companies and passenger busses operating on schedule—yet they come to a full stop at each railroad crossing.

It would take thousands of hours of "saved time" to make up for the loss of a single life. Take care of yourself and the people who ride with you. Get such a sign for yourself. Live up to it. Help reduce the number of accidents. Think Safety.

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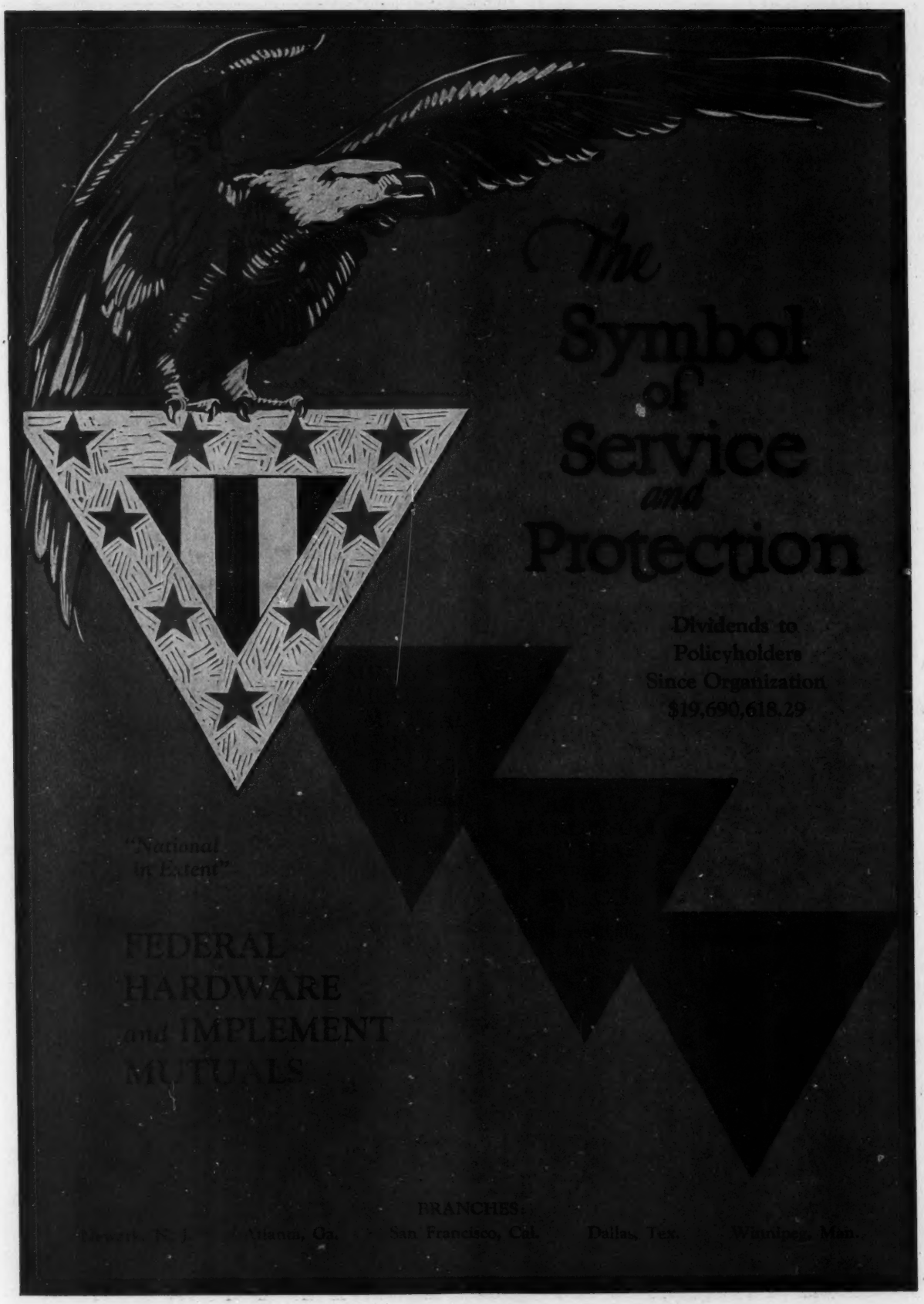
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